WATER DITO FIRE FOR A MINIMOM OF TEN FEET EITHER SIDE OF POTABLE FIFELINE WITH A SINGLE TWENTY FOOT SECTION OF DRID WATER PIPE CENTERED ON THE CROSSING. PRESSURE SEWAGE MAINS SHALL BE NO CLOSER THAN 18 INCHES FROM POTABLE MAINS. IN LIEU OF CONSTRUCTING OR RECONSTRUCTING, THE NON POTABLE WATER LINE TO CONFORM TO WATER MAIN STANDARDS, THE POTABLE WATER LINE MAY BE PROTECTED BY A SLEEVING MATERIAL ACCEPTABLE TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY FOR A DISTANCE OF 10 HORIZONTAL FEET ON BOTH SIDES OF CROSSING. 4.CONTRACTOR(S) SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND, AS REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS SHALL INCLUDE CLEARING AND GRUBBING WHICH CONSISTS OF CLEARING THE GROUND SURFACE OF ALL TREES, STUMPS BRUSH, UNDERGROWTH, HEDGES, HEAVY GROWTH OF GRASS OR WEEDS, FENCES STRUCTURES, DEBRIS, RUBBISH AND SUCH MATERIAL WHICH, IN THE OPINION OF THE ENGINEER, IS UNSUITABLE FOR THE FOUNDATION OF PAVEMENTS. ALL MATERIAL

NOT SUITABLE FOR FUTURE USE ON SITE SHALL BE DISPOSED OF OFF SITE. 5.SURVEY CONTROL POINTS WHICH ARE CRITICAL TO THE CONSTRUCTION OF THE PROJECT ARE TO BE LOCATED WITHIN THE LIMITS OF WORK THE CONTRACTOR SHALL TAKE PRECAUTION TO PROTECT THE POINTS IN PLACE. 6.THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL REPLACEMENT DRAINAGE 7.ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS F ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES AND CONTROL OF TRAFFIC WITHIN AND AROUND THE CONSTRUCTION AREA. 8.EXISTING A.C. PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE

EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING. 9.ALL MATERIALS FURNISHED ON OR FOR THE PROJECT MUST MEET THE MINIMUM REQUIREMENTS OF THE APPROVING AGENCIES OR AS SET FORTH HERFIN WHICHEVER IS MORE RESTRICTIVE. 10. CONTRACTORS MUST FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THIS PROJECT MEET THE REQUIREMENTS OF ITEM #9 AT THE REQUEST OF THE AGENCY AND/OR THE ENGINEER. 11. ALL CONTRACTORS WORKING WITHIN THE PUBLIC ROAD RIGHT-OF-WAY ARE REQUIRED TO SECURE A RIGHT- OF-WAY PERMIT FROM ACHD AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION. 2. ALL COSTS OF RETESTING FOR PREVIOUSLY FAILED TESTS SHALL BE BACK CHARGED TO THE CONTRACTOR BY THE OWNER 5. ALL COSTS TO THE CONTRACTOR INCURRED IN CORRECTING DEFICIENT WORK SHALL BE TO THE CONTRACTORS ACCOUNT. FAILURE TO CORRECT SUCH WORK WILL BE CAUSE FOR A STOP WORK ORDER AND POSSIBLE TERMINATION.

14. THE CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS AND SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER WHEN FLEVATIONS OR INVERTS DO NOT MATCH PLANS 15. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE HE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL 16. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY NECESSARY NPDES PERMITS, FILING ANY NOI'S, AND PREPARING A

POLLUTION PREVENTION PLAN (PPP) IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION AGENCY REGULATIONS. CONTACT THE EPA AT (208) 378-5746 FOR THE REQUIRED INFORMATION. SAID PERMIT SHALL BE PRESENTED TO THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. 17. ALL UTILITIES, INCLUDING SERVICE LINES, WITHIN STREET TRAVEL WAYS SHALL BE IN PLACE PRIOR TO CURB, GUTTER, SIDEWALKS 18. PIPE CONTRACTOR SHALL REPLACE ALL PAVEMENT AND CONCRETE REMOVED FOR THE INSTALLATION OF WATER, SEWER, OR IRRIGATION PIPE. ALL PAVEMENT SHALL BE REPLACED WITHIN SEVEN CALENDAR DAYS FROM THE TIME THE PAVEMENT AND/OR CONCRETE IS REMOVED. CONCRETE AND PAVEMENT SHALL BE REPLACED PER ISPWC AND ACHD STANDARDS

19. NO PAVING SHALL OCCUR UNTIL THE CONTRACTOR OBTAINS WRITTEN APPROVAL OF ALL INSTALLED WATER, SEWER, AND PRESSURE IRRIGATION FACILITIES FROM THE CITY OF KUNA.
20. IN AREAS WHERE ROCK EXCAVATION IS REQUIRED ALL BLASTING FOR OTHER UTILITIES SHALL OCCUR PRIOR TO INSTALLATION OF ANY SEWER MAINS, WATER MAINS, PRESSURE IRRIGATION MAINS OR SERVICE LINE CROSSINGS. BLASTING FOR ROCK EXCAVATION IN THE PROXIMITY OF EXISTING UTILITIES FROM PREVIOUS PHASES OF THE SUBDIVISION OR NEIGHBORING SUBDIVISIONS MAY BE PERFORMED AS LONG AS IT IS EQUAL DISTANCE HORIZONTAL AS IS THE EXCAVATION DEPTH FROM THE EXISTING UTILITY OR A MINIMUM

OF 15 FEET, WHICHEVER IS GREATER. THE CONTRACTOR PERFORMING THE BLASTING SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY 21. THE DEVELOPER IS REQUIRED TO RETAIN A QUALIFIED REGISTERED ENGINEER TO PERFORM INSPECTION SERVICES DURING CONSTRUCTION. THE ENGINEER SHALL FURNISH CITY A WRITTEN CERTIFICATION THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. COPIES OF ALL AIR TESTS, DEFLECTION TESTS, PRESSURE TESTS, AND BACTERIOLOGICAL TEST RESULTS SHALL BE FURNISHED WITH THE CERTIFICATION LETTER.
22. THE CITY OF KUNA WILL PROVIDE PERIODIC INSPECTION AND OBSERVE TESTING FOR AN EIGHT HOUR DAY, FROM 8:00 A.M. TO 5:00

P.M., FOR A FORTY HOUR WEEK. THE CONTRACTOR SHALL REIMBURSE THE CITY AT RATES ESTABLISHED BY THE CITY FOR INSPECTION IN EXCESS OF THE NORMAL WORK WEEK, INCLUDING LEGAL HOLIDAYS. OVERTIME INSPECTION RATES AND A LIST OF LEGAL HOLIDAYS CAN BE OBTAINED FROM THE CITY PUBLIC WORKS DEPARTMENT. 23. ALL PLANS USED FOR CONSTRUCTION SHALL BEAR THE CITY OF KUNA "APPROVED FOR CONSTRUCTION" STAMP. THE DEVELOPER OR HIS ENGINEER SHALL DELIVER THE ORIGINAL DRAWINGS TO THE CITY ENGINEER FOR APPLICATION OF THE APPROVAL STAMP FOLLOWING APPROVAL BY ALL OTHER AGENCIES AND PRIOR TO PRINTING THE FINAL PLAN SETS FOR CONSTRUCTION. COPIES OF AGENCY APPROVAL LETTERS SHALL BE SUBMITTED WITH THE ORIGINAL DRAWINGS TO RECEIVE THE APPROVAL STAMP. ALL PLANS PRINTED FOR CONSTRUCTION SHALL BE PRINTED ON A PALE YELLOW PAPER. THREE COMPLETE SETS OF FINAL CONSTRUCTION PLANS FOR THE WATER, SEWER, PRESSURE IRRIGATION AND ROADWAY IMPROVEMENTS SHALL BE FURNISHED TO THE CITY PRIOR TO BEGINNING CONSTRUCTION. USE OF ANY PLANS WITHOUT THE KUNA "APPROVED FOR CONSTRUCTION" STAMP DURING CONSTRUCTION WILL BE

CAUSE FOR A STOP WORK ORDER BY THE CITY. ANY MODIFICATIONS DURING CONSTRUCTION MUST BE APPROVED IN WRITING BY 24. WHEN CONSTRUCTION IS SATISFACTORILY COMPLETED. CLEANED AND TESTED THE DEVELOPER SHALL REQUEST A FINAL ACCEPTANCE INSPECTION BY THE CITY. THE FINAL ACCEPTANCE INSPECTION SHALL OCCUR AFTER ALL OTHER UTILITIES ARE INSTALLED. AT A MINIMUM, THE FINAL ACCEPTANCE INSPECTION SHALL CONSIST OF CLEANING ALL SEWER MAINS, VISUALLY INSPECTING EACH MANHOLE, VITNESSING A FINAL SEWER AIR TEST AND WATER PRESSURE TEST, PRESSURE IRRIGATION PRESSURE TEST, DEFLECTION TESTING OI THE SEWER MAINS, VISUAL INSPECTION OF THE SEWER MAINS, AND PROVIDING A DVD VIDEO OF ALL SEWER MAIN VISUAL INSPECTION. ALL TESTING IS TO BE PROVIDED AND PAID FOR BY THE DEVELOPER AS PART OF SUBDIVISION OBLIGATIONS. THE CITY HAS THE RIGHT TO INSPECT THE WORK AT ANY TIME DURING CONSTRUCTION. ANY WORK THAT DOES NOT CONFORM TO

THE DEVELOPER SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE CITY. THIS GUARANTEE SHALL COVER ALL DAMAGE TO THE CITY UTILITY SYSTEMS OF ANY KIND. DEVELOPER SHALL NOTIFY ALL PURCHASERS OF LOTS, AND THEIR CONTRACTORS, THAT CITY UTILITY SYSTEMS HAVE BEEN ACCEPTED BY THE CITY. ANY DAMAGE TO THESE SYSTEMS DURING HOME CONSTRUCTION SHALL BE BILLED DIRECTLY TO THE OWNER OF RECORD AT THE TIME THE DAMAGE IS FOUND. 27. THE DEVELOPER SHALL FURNISH THE CITY RECORD DRAWINGS AS FOLLOWS: ONE (1) SET OF ELECTRONIC DRAWINGS ON CD IN PDF FORMAT, AND TWO (2) 24 X 36 SETS ON WHITE PAPER BEFORE FINAL PLAT OR WITHIN 30 DAYS OF FINAL ACCEPTANCE.

SEWER LIFT

HE APPROVED PLANS AND SPECIFICATIONS SHALL BE REJECTED.

ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE CURRENT EDITION OF THE ISPWC AND THE ACHD SUPPLEMENTAL SPECIFICATIONS. NO EXCEPTIONS TO DISTRICT POLICY, STANDARDS, AND THE ISPWC WILL BE ALLOWED UNLESS SPECIFICALLY AND PREVIOUSLY APPROVED IN WRITING BY THE DISTRICT 2. WHEN DISCREPANCIES OCCUR BETWEEN PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. UNTIMELY NOTIFICATION SHALL NEGATE ANY CONTRACTORS CLAIM FOR ADDITIONAL COMPENSATION. 3. INSPECTION OF WORK WITHIN THE RIGHT-OF-WAYS SHALL BE BY THE ADA COUNTY HIGHWAY DISTRICT AND THE OWNER'S ENGINEER. CONTACT ACHD INSPECTION SERVICES AT 387-6284 TO SCHEDULE INSPECTIONS. 48 HOUR ADVANCED NOTICE IS REQUIRED. ALL TOPS OF VALVE BOXES AND SEWER MANHOLES SHALL BE SET FLUSH WITH THE SLOPE OF THE FINISHED STREET GRADES. THE ROADWAY CONTRACTOR SHALL INSTALL AND ADJUST ALL SPACERS, GRADE RINGS, MANHOLE RINGS AND LIDS. 5. EXISTING A.C. PAVEMENT SHALL BE CUT TO A NEAT STRAIGHT LINE (2' MINIMUM CUT BACK) PARALLEL OR PERPENDICULAR TO THE STREET CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING.
6. ALL COSTS OF RETESTING FOR PREVIOUSLY FAILED TESTS SHALL BE BACKCHARGED TO THE CONTRACTOR BY THE OWNER TO CORRECT SUCH WORK WILL BE CAUSE FOR A STOP WORK ORDER AND POSSIBLE TERMINATION.

8. ALL STORM DRAINAGE APPURTENANCES SHALL BE INSPECTED AND CERTIFIED BY ADA COUNTY HIGHWAY DISTRICT.

9. ALL WATER VALVES WILL BE PLACED SO AS NOT TO CONFLICT WITH ANY CONCRETE CURB, GUTTER, VALLEY GUTTER, AND SIDEWALK

10. ALL WATER METERS ARE TO BE LOCATED OUTSIDE THE ROAD RIGHT-OF-WAY. ALL FIRE HYDRANTS ARE TO BE LOCATED WITHIN THE ROAD RIGHT-OF-WAY. THERE MUST BE AT LEAST A ONE (1) FOOT SEPARATION BETWEEN BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT. . OVER EXCAVATION AND ADDITIONAL GRANULAR BACKFILL MAY BE REQUIRED IN HIGH GROUNDWATER AREAS WHICH ARE TO BE DETERMINED BY THE FIELD INSPECTOR.

13. ALL MATERIAL PLACED AS FILL OR BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 306 OF THE CURRENT EDITION OF ADA COUNTY HIGHWAY DISTRICT STANDARD SPECIFICATIONS.

14. ROADWAY CONSTRUCTION WILL MEET SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION STANDARD DRAWINGS: (CURRENT EDITION)

1. STREET SECTION, ACHD SUPPLEMENTAL DRAWING NO. SD-801, AND SECTIONS AS SHOWN ON ROADWAY DETAIL SHEET.

2. ASPHALT REPAIR FOR STREET CUTS. ISPWC DRAWINGS SD-301, ACHD SD-303, ACHD SD-806

3. 4.0' CONCRETE VALLEY GUTTER, ACHD SUPPLEMENTAL DRAWING NO. SD-708.
4. VERTICAL AND ROLLED CURB AND GUTTER, ACHD SUPPLEMENTAL DRAWING NO. SD-701 AND SD-702.
5. HANDICAP PEDESTRIAN RAMP, DRAWING NO. SD-712A, SD-712G AND SD-712C. 5. DETECTABLE WARNING TRUNCATED DOMES TO BE CAST INTO THE CONCRETE (ADHESIVE MATS NOT ALLOWED) AND

COLORED TRAFFIC YELLOW, DRAWING NO. SD-712. 7. SIDEWALKS, ACHD SUPPLEMENTAL DRAWING NO. SD-709. 9. MONITORING WELLS PER ACHD STORMWATER DESIGN GUIDELINES DETAIL . SAND AND GREASE TRAP PER ACHD STORMWATER DESIGN GUIDELINES BMP-01.

DRAINAGE POND PER ACHD STORMWATER DESIGN GUIDELINES BMP-02. 15. PRIOR TO PLACEMENT OF ANY PAVEMENT MARKINGS CONTACT ACHD INSPECTION FOR VERIFICATION OF COMPLIANCE WITH POLICY AND EXISTING PAVEMENT MARKINGS. 16. FOR SUBDIVISION SIGN INSTALLATION; OUTSIDE INSTALLERS MUST BE BONDED WITH ACHD AND OBTAIN A NO-CHARGE

## **WATER**

1. THE WATER SYSTEM SHALL BE CONSTRUCTED TO CONFORM WITH STANDARDS SET FORTH IN THE "IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS", THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC LATEST EDITION) AND CITY OF KUNA

2. CONTRACTOR SHALL NOTIFY OWNER'S ENGINEER AND KUNA CITY 48 HOURS BEFORE INITIAL CONSTRUCTION BEGINS AND SHALL ALSO REQUEST KUNA CITY INSPECTION OF WATER LINES AND APPURTENANCES TWENTY-FOUR (24) HOURS IN ADVANCE OF BACKFILLING. 3. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT THE ENTRY OF ANIMALS, DIRT AND OTHER FOREIGN MATTER INTO PIPES AND

SHALL NOT LEAVE ANY OPEN PIPE END AT ANY TIME WHEN ABSENT FROM THE WORK SITE 4. ALL WATER MAINS SHALL BE PVC CONFORMING TO THE PROVISIONS OF AWWA C-900 DR 18 OR CLASS 150 CEMENT MORTAR LINED DUCTILE IRON CONFORMING TO AWWA C-151. ALL FITTINGS SHALL BE DUCTILE IRON CONFORMING TO AWWA C-110.

5. MINIMUM DEPTH FOR ALL WATER MAINS SHALL BE FOUR (4) FEET FROM FINISHED GRADE TO TOP OF PIPE. 6. AFTER INSTALLATION OF WATER MAINS, TRENCHES SHALL BE COMPACTED TO 95% OF MAXIMUM PROCTOR DENSITY TO PREVENT

7. ALL MAIN LINE WATER VALVES SHALL BE RESILIENT-SEATED GATE VALVES CONFORMING TO AWWA C-509. ALL WATER VALVES SHALL BE FURNISHED WITH A STANDARD CAST IRON 5-1/4 INCH DIAMETER 3-PIECE ADJUSTABLE VALVE BOX. THE CAST IRON COVER SHALL BE DESIGNED TO SLIP INSIDE THE TOP BELL AND SHALL BE MARKED WITH THE WORD "WATER" AS AN INTEGRAL PART OF THE COVER. CONCRETE COLLAR SHALL BE REQUIRED WHEN LOCATED IN PAVEMENT.

8. ALL TEES, PLUGS, BENDS, AND OTHER LOCATIONS WHERE UNBALANCED FORCES EXIST, SHALL BE SECURED AND ANCHORED BY SUITABLE THRUST BLOCKING AS SHOWN ON SD-403 (ISPWC)

9. NO. 12 DIRECT BURIAL TRACER WRE SHALL BE PLACED AND TAPED AT THE CROWN OF WATER MAINS AND SERVICE LINES. THE TRACER WIRE SHALL BE LOOPED FROM THE MAIN LINE TO EACH SERVICE VAULT ALONG THE SERVICE PIPE AND BACK TO THE MAIN LINE. THE TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVE BOXES AND SHALL BE EXTENDED ALONG THE OUTSIDE OF THE LOWER PORTION OF THE VALVE BOX AND ALONG THE INSIDE OF THE UPPER PORTION. WIRE SHALL BE TAPED TO GATE VALVES SO IT IS ACCESSIBLE FROM ABOVE BUT DOES NOT INTERFERE WITH VALVE OPERATION. AN ELECTRICAL CONTINUITY TEST SHALL BE CONDUCTED BEFORE PAVING TO PROVE THE INTEGRITY OF THE TRACER WIRE.

10.ALL MAINS SHALL BE LEAK-TESTED, FLUSHED AND DISINFECTED AFTER INSTALLATION OF ALL UTILITIES, BEFORE PAVING AND BEFORE CONNECTING TO THE SYSTEM. THE DISTRIBUTION SYSTEM SHALL BE PRESSURE TESTED TO 150 PSI MINIMUM OR IN ACCORDANCE WITH SECTION 401 OF THE ISPWC. IT SHALL BE DISINFECTED ACCORDING TO SECTION 401 (ISPWC) AND THEN FLUSHED. THE DISINFFCTION AND FINAL FLUSHING PROCEDURE SHALL BE TESTED TO DETERMINE IF THE APPROPRIATE MINIMUM CHI ORINE (CL) RESIDUALS HAVE BEEN MET. EACH METER SETTER SHALL BE OPENED TO VERIFY THAT THE CORPORATION STOP IS OPEN AND THE SERVICE IS OPERABLE PRIOR TO PAVING. EACH VALVE AND HYDRANT SHALL BE OPERATED TO ENSURE IT IS FUNCTIONAL PRIOR TO PAVING. A REPRESENTATIVE OF THE CITY MUST OBSERVE THE TESTING.

11. ALL INSTALLED WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH DIVISION 400, OF THE ISPWC SPECIFICATIONS AND PASS THE REQUIRED BACTERIOLOGICAL TEST PRIOR TO BEING PUT INTO SERVICE. THE CONTRACTOR SHALL FURNISH KUNA CITY WITH REPORTS FROM A CERTIFIED LABORATORY OF THE BACTERIA SAMPLES SHOWING THAT THE WATER LINES HAVE PASSED BACTERIA SAFETY REQUIREMENTS. A REPRESENTATIVE OF THE CITY MUST OBSERVE THE TESTING.

12.THE CONTRACTOR MAY PRESSURE TEST ALL WATER LINES AFTER DISINFECTION AND FLUSHING BUT PRIOR TO INSTALLATION OF OTHER UTILITIES. AFTER ALL UTILITIES ARE INSTALLED AND PRIOR TO PAVING THE CONTRACTOR SHALL PERFORM A FINAL PRESSURE TEST WITH KUNA CITY PERSONNEL IN ATTENDANCE. THE CONTRACTOR SHALL FURNISH ALL PERSONNEL AND EQUIPMENT NECESSARY TO

13.CONTRACTOR IS TO FIELD VERIFY ALL VALVE BOX LID ELEVATIONS TO ENSURE THAT SAID LID ELEVATIONS MATCH FINAL STREET GRADE, AND ALL METER LID ELEVATIONS TO MATCH SIDEWALK ELEVATIONS.

14. VALVES, FLANGED OR M.J., SHALL BE LOCATED IN THE STREET UNLESS EXPLICITLY APPROVED BY THE CITY ENGINEER. ALL GATE VALVES SHALL BE SET AS CLOSE (FLANGE CONNECTED) AS POSSIBLE TO MAIN LINE FITTINGS. ALL WATER METERS AND FIRE HYDRANTS ARE TO BE LOCATED OUT OF THE ROAD RIGHT-OF-WAY. THERE MUST BE AT LEAST A ONE (1) FOOT SEPARATION BETWEEN ANY BACK OF SIDEWALK (OR CURB IF NO SIDEWALK) AND THE LEADING EDGE OF ANY FIRE HYDRANT.

15. WATER SERVICE LINES SHALL BE PLACED IN A 4 INCH DIAMETER SCHEDULE 80 WATER CLASS PIPE WHEREVER THE SERVICE LINE CROSSES A STREET DRAINAGE SEEPAGE BED.

16.THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS WATER SERVICE TO ALL EXISTING WATER USERS AFFECTED BY CONSTRUCTION.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL EXISTING SERVICE CONNECTIONS WITH AN 8-FOOT 2 X 4

BOARD PAINTED BLUE. CONTRACTOR SHALL STAMP OR STENCIL THE SIDEWALK AT THE POINT WHERE THE SERVICE CROSSES THE

18.THE PAVING CONTRACTOR SHALL SET WATER VALVE RISERS IN CONCRETE COLLARS PER ISPWC STANDARD DRAWING SD-406. 19.ALL FIRE HYDRANTS SHALL BE DRY BARREL CONFORMING TO AWWA C-502 AND PROVIDED AND INSTALLED PER ISPWC SECTION 403 AND ISPWC DWG SD-404. HYDRANTS SHALL HAVE A FIVE (5) FOOT SETTING MINIMUM; 150 PSI WORKING PRESSURE; ONE 4-1/2 INCH DIAMETER NATIONAL STANDARD PUMPER NOZZLE; AND TWO 2-1/2 INCH DIAMETER NATIONAL STANDARD THREAD FIRE HOSE NOZZLES. THE VALVE OPERATOR SHALL OPEN COUNTER CLOCKWISE. THE HYDRANT SHALL BE EQUIPPED WITH DRAIN THAT OPENS WHEN HYDRANT IS CLOSED; AND A SIX (6) INCH FLANGED BY MECHANICAL JOINT RESILIENT-SEAT GATE VALVE ATTACHED DIRECTLY TO THE MAIN LINE TEE. FIRE HYDRANTS SHALL BE A CLOW MEDALLION, WATEROUS PACER 100, OR MUELLER A423. NO OTHERS WILL BE ACCEPTED. MAXIMUM HYDRANT SPACING SHALL BE 450 FEET. HYDRANT LOCATIONS SHALL BE APPROVED IN WRITING BY KUNA RURAL FIRE DEPARTMENT AND SUBMITTED WITH THE CONSTRUCTION PLANS FOR FINAL REVIEW AND APPROVAL BY THE

20. INDIVIDUAL 1-INCH WATER SERVICES SHALL BE INSTALLED FOR EACH CONNECTION FROM A SINGLE OR DUAL METER VAULT. THE 1-INCH WATER SERVICE FOR EACH CONNECTION SHALL BE EXTENDED A MINIMUM OF 10-FEET ON THE HOUSE SIDE OF THE METER. OR AS REQUIRED TO EXTEND PAST OTHER UTILITIES LOCATED WITHIN THE 10-FOOT UTILITY EASEMENT. WATER METERS SHALL BE FURNISHED AND INSTALLED BY THE CITY. EXCEPT AS NOTED BELOW, SERVICE DETAILS SHALL BE AS NOTED IN ISPWC DWG SD-401 SPECIFICALLY EACH SERVICE LEG SHALL BE PROVIDED WITH 18-INCH TALL %-INCH COPPER METER SETTER; CURB STOP, LOCKABLE SHUTOFF VALVE AND CHECK VALVE; AND 20-INCH DIAMETER BY 36-INCH TALL INSULATED METER BOX AS MANUFACTURED BY "MID-STATES PLASTICS, INC.", OR APPROVED EQUAL; AND A CAST IRON FRAME AND COVER TAPPED WITH A 1-INCH DIAMETER RECESSED HOLE FOR THE CITY AUTOREAD METER SENSOR AS APPROVED BY THE CITY. WHERE PRACTICAL METER BOX SHALL BE LOCATED ON THE NORTH OR EAST SIDE OF THE PROPERTY, OR IN CASE OF DUAL WATER SERVICE, ON THE NORTH OR EAST SIDE OF HE COMMON PROPERTY LOT LINE. THE CENTERLINE OF THE METER SETTER SHALL BE LOCATED 18—INCHES BELOW FINISH GRADE.

METERS SHALL BE PLACED 18-INCHES INSIDE THE PROPERTY LINE AND 18-INCHES AWAY FROM THE SIDE LOT LINE. 21.MULTIPLE TAPS IN THE SAME PIPE JOINT SHALL BE STAGGERED AND SHALL BE SEPARATED BY A MINIMUM OF ONE FOOT.

TEN MILE - SHEET 4.2

BLOCK 1

22. ALL PIPE, MAINS, AND SERVICES SHALL BE BEDDED WITH TYPE 1 OR TYPE III BEDDING. IN AREAS OF ROCK EXCAVATION BEDDING SHALL BE SIX (6) INCHES BELOW THE BOTTOM OF PIPE.

## **△** SEWER

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH "THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC - LATEST EDITION)", STANDARDS OF KUNA CITY PUBLIC WORKS DEPARTMENT AND/OR THE ADA COUNTY HIGHWAY DISTRICT MODIFICATIONS TO THE ISPWC. 2.FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION WILL BE BY THE CITY OF KUNA. 3.ALL SEWER PIPE AND FITTINGS SHALL BE POLY-VINYL-CHLORIDE (PVC) CONFORMING TO THE PROVISIONS OF ASTM D-3034, SDR-35 FOR SIZES 4-INCH THROUGH 15-INCH AND ASTM F 679 FOR SIZES 18-INCH THROUGH 36-INCH. PRESSURE SEWER PIPE SHALL CONFORM TO AWWA C900 PVC, DR 18 (235 PSI) PIPE. 4.SEWER INSPECTIONS WILL BE BY OWNER'S ENGINEER AND THEIR DECISIONS SHALL BE CONSIDERED AS FINAL SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER AND IN CONFORMANCE WITH APPROVED PLANS. 5.AFTER STUB OUTS FOR SERVICE LINES ARE INSTALLED AND MARKED, THE CONTRACTOR SHALL NOTIFY OWNER AND CITY ENGINEER FOR INSPECTION SO THAT ANY DESTRUCTION OF SAME IS NOT BACKCHARGED TO SEWER CONTRACTOR.

6.PRIOR TO FINAL ACCEPTANCE, AFTER ALL UTILITIES ARE IN AND PRIOR TO PAVING, TESTING SHALL BE

24 HOURS PRIOR TO TESTING. ALL INSTALLED SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH DIVISION 500 OF THE ISPWC SPECIFICATIONS. A REPRESENTATIVE OF THE CITY MUST OBSERVE THE TESTING. TESTING SHALL INCLUDE AIR PRESSURE TESTING, DEFLECTION TESTING, SURVEY INVERT ELEVATIONS AND VISUAL INSPECTION USING CCTV CAMERA. A COPY OF THE VISUAL INSPECTION TAPE SHALL BE PROVIDED TO THE CITY OF KUNA IN DVD FORMAT PRIOR TO FINAL ACCEPTANCE OF THE SEWER LINE. ALL SEWER LINES SHALL BE CLEANED PRIOR TO THE DEFLECTION TEST AND CCTV CAMERA INSPECTIONS. 7.ALL MANHOLES SHALL BE CONSTRUCTED WATER TIGHT AND WITH THE TOP OF CONE LOCATED WITHIN 21 INCHES OF FINISHED GRADE. THE SEWER CONTRACTOR SHALL SUPPLY ALL LID ASSEMBLIES AND THE REQUIRED NUMBER OF RISER AND GRADE RINGS. THE SEWER CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF THE TOP OF THE EXISTING AND CONSTRUCTED MANHOLE CONES TO ASSURE THAT ALL RING

CONDUCTED. THE CONTRACTOR SHALL CONTACT OWNER'S ENGINEER AND THE CITY OF KUNA A MINIMUM OF

ELEVATIONS MATCH FINAL STREET GRADES. EACH OF THE GRADE RINGS SHALL BE SET IN A BED OF NON—SHRINK GROUT OR MORTAR AND TROWELED SMOOTH WITH THE INSIDE OF THE MANHOLE. THE NON-SHRINK GROUT SHALL ALSO BE APPLIED BETWEEN METAL FRAME AND GRADE RINGS. STACKING OF THE GRADE RINGS AND FRAME WITHOUT NON-SHRINK GROUT OR MORTAR WILL NOT BE ALLOWED. 8.THE PAVING CONTRACTOR SHALL SET THE GRADE RINGS AND POUR THE CONCRETE COLLARS PER STANDARD DRAWING NO. SD-508. THE PAVING CONTRACTOR SHALL CONTACT ADA COUNTY HIGHWAY DISTRICT 24 HOURS PRIOR TO POURING CONCRETE COLLARS. 9.SERVICE STUB OUTS WILL BE TO THE POINTS SHOWN IN THE DRAWINGS OR AS MARKED BY THE ENGINEER IN

THE FIELD. SEWER SERVICE STUB OUTS BEGINNING AT A MANHOLE ARE GENERALLY NOT APPROVED, BUT WHEN UNAVOIDABLE IN THE OPINION OF THE CITY ENGINEER, SHALL HAVE THE TOP OF THE FOUR INCH SERVICE LINE PIPE MATCH THE TOP OF THE MAINLINE PIPE. SEWER SERVICE MARKER SHALL BE IN PLACE FOR FINAL INSPECTION. SIDEWALKS ARE TO BE STAMPED OR STENCILED WHERE SERVICE CROSSES. 10. GROUNDWATER LEVELS SHALL BE MAINTAINED BELOW THE BOTTOM OF THE TRENCH DURING THE PIPE LAYING AND PIPE JOINING OPERATIONS.

11. TRENCH BACKFILL ABOVE THE PIPE ZONE SHALL BE INSPECTED BY ADA COUNTY HIGHWAY DISTRICT OR BY THE OWNER'S ENGINEER IN ACCORDANCE WITH THE LATEST EDITION OF THE "CONSTRUCTION QUALITY" ASSURANCE MANUAL". COMPACTION TESTS ARE REQUIRED IN THE BACKFILL ABOVE THE PIPE ZONE. WITHIN PUBLIC RIGHT-OF-WAY, ACCORDING TO ADA COUNTY HIGHWAY DISTRICT REQUIREMENTS AND THE RESULTS SHALL BE SUBMITTED TO KUNA CITY AND ADA COUNTY HIGHWAY DISTRICT PRIOR TO FINAL ACCEPTANCE. 12. ALL STATIONING IS REFERENCED TO THE GRAVITY SEWER CENTERLINE.

13. SEWER SERVICE LINES SHALL BE INSTALLED PRIOR TO STREET IMPROVEMENTS. 14. THE HORIZONTAL SEPARATION OF WATER AND SEWER MAINS SHALL BE A MINIMUM OF TEN FEET FROM PIPE EDGE TO PIPE EDGE. PRESSURE SEWAGE MAINS SHALL CROSS NO CLOSER THAN 18 INCHES FROM POTABLE

15. SEWER CONSTRUCTION SHALL MEET THE SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING STANDARD DRAWINGS AND ACCOMPANYING SPECIFICATIONS FOUND IN IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND ADA COUNTY HIGHWAY DISTRICT STANDARD DRAWINGS: 1.STANDARD MANHOLE — TYPE A, DRAWING NO. SD—501 AND SD—501A. 2.STANDARD SHALLOW MANHOLE - DRAWING NO. SD-505.

3.MANHOLE COLLAR DETAIL - DRAWING NO. SD-508. 4.MANHOLE COVER AND FRAME - DRAWING NO. SD-507.

5.STANDARD SEWER SERVICE LINE - DRAWINJG NO. SD-511 & SD-511A.

6.SEWER SERVICE MARKER — DRAWING NO. SD—512. 16. MANHOLES SHALL BE CONSTRUCTED IN SEWER MAINS AT ALL CHANGES IN PIPE GRADE, ALL CHANGES IN PIPE SIZE, ALL CHANGES IN PIPE ALIGNMENT, ALL PIPE INTERSECTIONS AND AT THE TERMINATION OF ALL MAIN LINES. TEMPORARY SEWER CLEANOUTS MAY BE INSTALLED AT THE TERMINATION OF STUB MAIN LINES LESS THAN 150 FEET IN LENGTH, BUT IN SUCH INSTANCES, PROVISION MUST BE MADE FOR THE CITY TO CHECK OR CONFIRM THE INSTALLED GRADE BEFORE THE MAIN LINE IS BACKFILLED.

17. THE CONTRACTOR SHALL LEAVE THE EXCAVATION FOR THE UPSTREAM END OF ALL SERVICE LINES OPEN FOR FIELD VERIFICATION OF THE INVERT ELEVATIONS AND SLOPES BY THE CITY'S INSPECTOR. THE CONTRACTOR SHALL NOT BACKFILL THE ENDS OF SERVICE LINES UNTIL THE CONTRACTOR HAS OBTAINED APPROVAL FROM KUNA CITY'S INSPECTOR OR MADE OTHER ARRANGEMENTS FOR THE VERIFICATION OF SERVICE LINE INVERT ELEVATIONS AND SLOPES. 18. THE CONTRACTOR SHALL INSTALL A REMOVABLE PLUG IN THE DOWN STREAM SIDE OF THE EXISTING

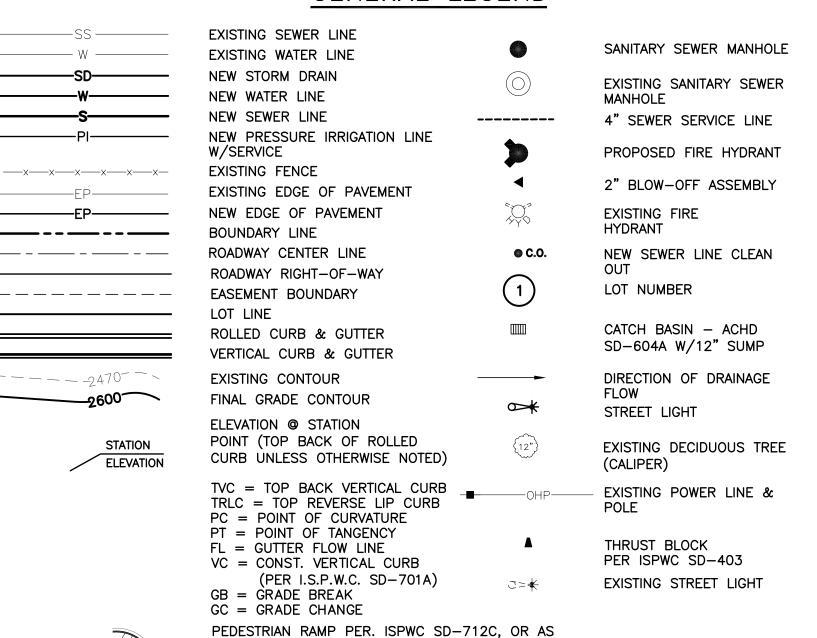
MANHOLE WHERE THE NEW CONNECTION WILL BE MADE. THE PLUG SHALL REMAIN IN PLACE DURING CONSTRUCTION UNTIL FINAL ACCEPTANCE OF THIS SEWER PROJECT. 19. ALL PIPE, MAINS, AND SERVICES SHALL BE BEDDED WITH TYPE 1 BEDDING. IN AREAS OF ROCK EXCAVATION BEDDING SHALL BE SIX (6) INCHES BELOW THE PIPE. 20. PRIOR TO CONNECTING TO THE EXISTING SEWER SYSTEM WHERE THE CONNECTION IS MADE BETWEEN

MANHOLES AND THE EXISTING SERVICES ALL SEWER MAINS AND SERVICES MUST BE AIR TESTED.

## PRESSURE IRRIGATION

1. FOR PRESSURE IRRIGATION NOTES SEE SHEET 6.1

## GENERAL LEGEND



SPECIFIED, W/ TRUNCATED DOMES TO BE CAST INTO

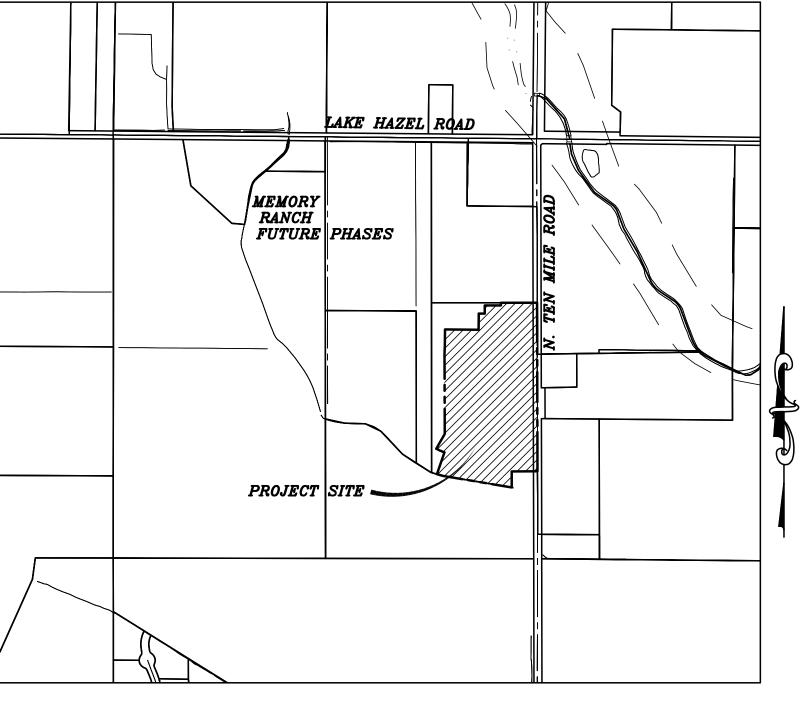
THE CONCRETE (ADHESIVE MATS NOT ALLOWED) AND

COLORED TRAFFIC YELLOW.

<u>DEVELOPER</u> TRILOGY DEVELOPMENT, INC. 9839 W CABLE CAR ST. SUITE 101 BOISE, ID 83709 TEL: 208-895-8858

## DEVELOPMENT PLANS FOR MEMORY RANCH SUBDIVISION NO. 1

A PORTION OF THE NE 1/4 OF SECTION 3, TOWNSHIP 2 NORTH, RANGE 1 WEST, BOISE MERIDIAN, KUNA, ADA COUNTY, IDAHO 2016



NAVD 1988 DATUM VICINITY MAP

## PLAN SHEET INDEX

COVER SHEET, INDEX, VICINITY MAP, & NOTES 2.1 FINAL PLAT EXISTING SITE & DEMO PLAN MASTER UTILITY PLAN SITE GRADING PLAN 3.4 SITE GRADING DETAILS STREET PLAN & PROFILE AND DETAILS STREET AND DRAINAGE DETAILS 5.1 - 5.5WATER & SEWER PLAN & PROFILE WATER & SEWER DETAILS PRESSURE IRRIGATION PLAN 6.1  $\triangle$  6.2 PRESSURE IRRIGATION DETAILS  $\triangle$  6.3-6.5 NOT USED

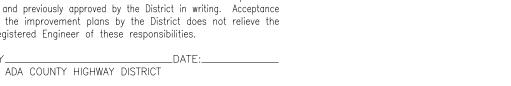
# RECORD DRAWING

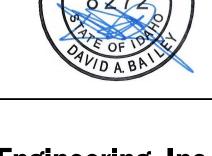
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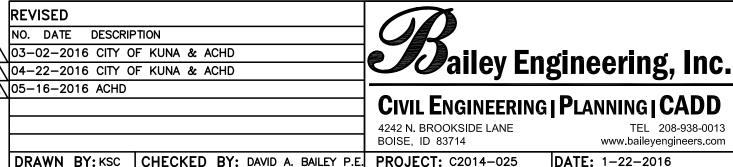
THE ENGINEER OF RECORD CERTIFIES THAT THE PLANS ARE PREPARED IN SUBSTANTIAL CONFORMANCE WITH THE ACHD POLICY MANUAL AND STANDARDS IN EFFECT AT THE TIME OF PREPARATION. THE ENGINEER ACKNOWLEDGES THAT ACHD ASSUMES NO LIABILITY FOR ERROR OR DEFICIENCIES IN THE DESIGN. ALL VARIANCES FROM ACHD POLICY SHALL BE APPROVED IN WRITING. THE FOLLOWING VARIANCES, LISTED BY DATE AND SHORT DESCRIPTION, WERE APPROVED FOR THE PROJECT: NONE.

### Plans Are Accepted For Public Street Construction

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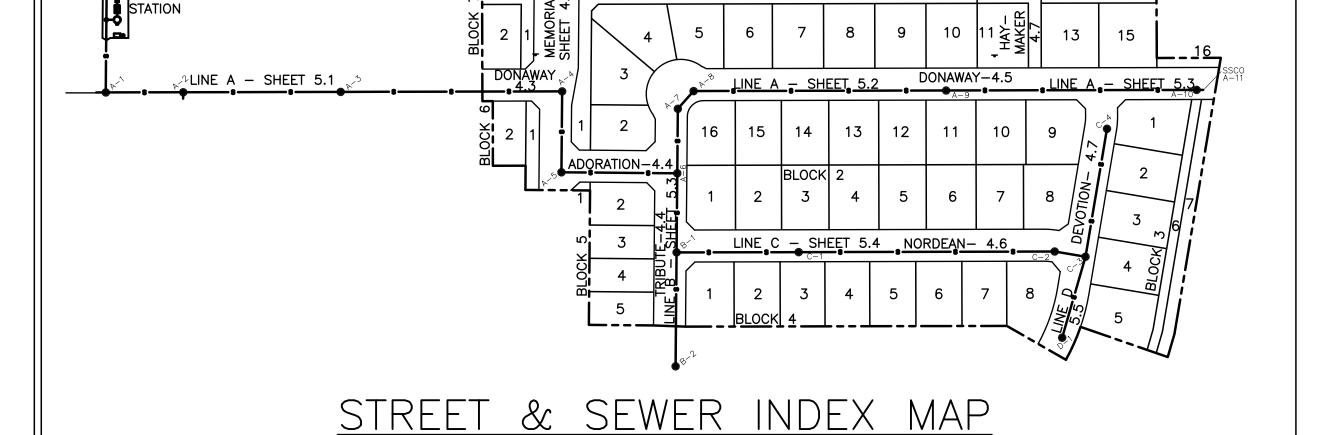




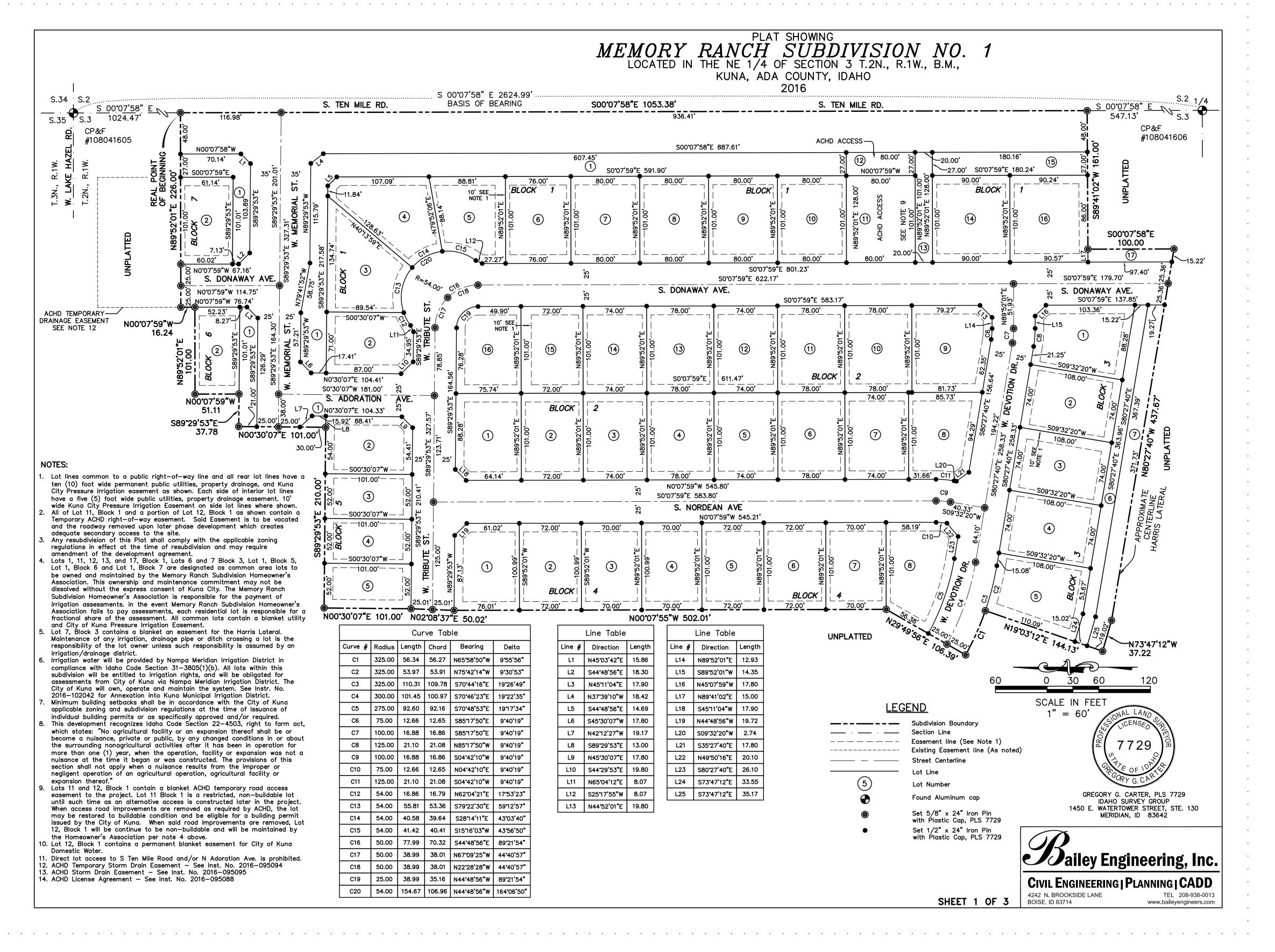


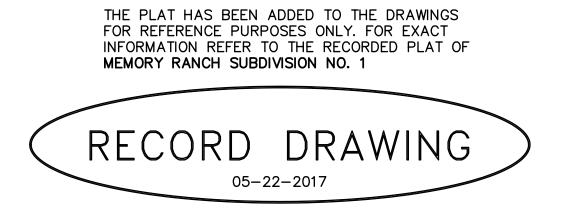
COYER MEMORY RANCH SUBDIVISION NO. TRILOGY DEVELOPMENT, INC.

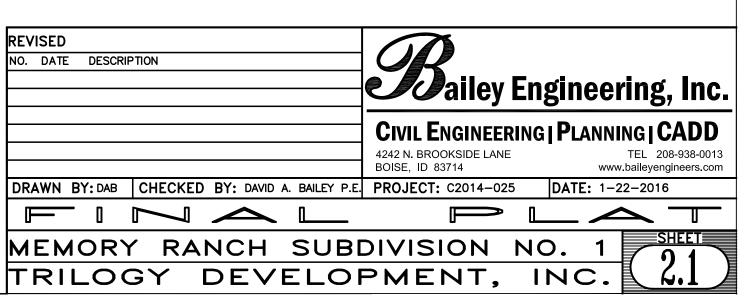
SHEET

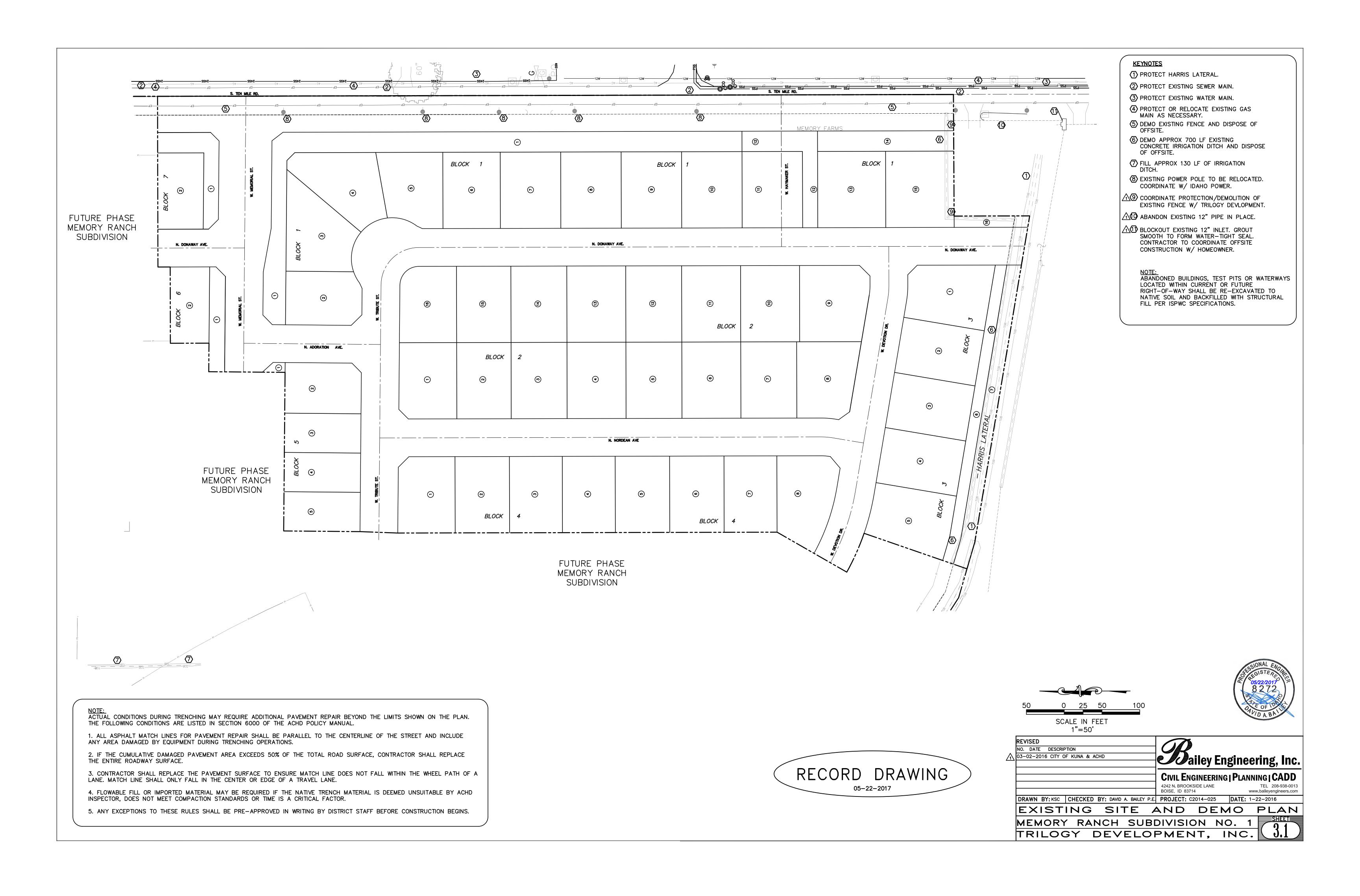


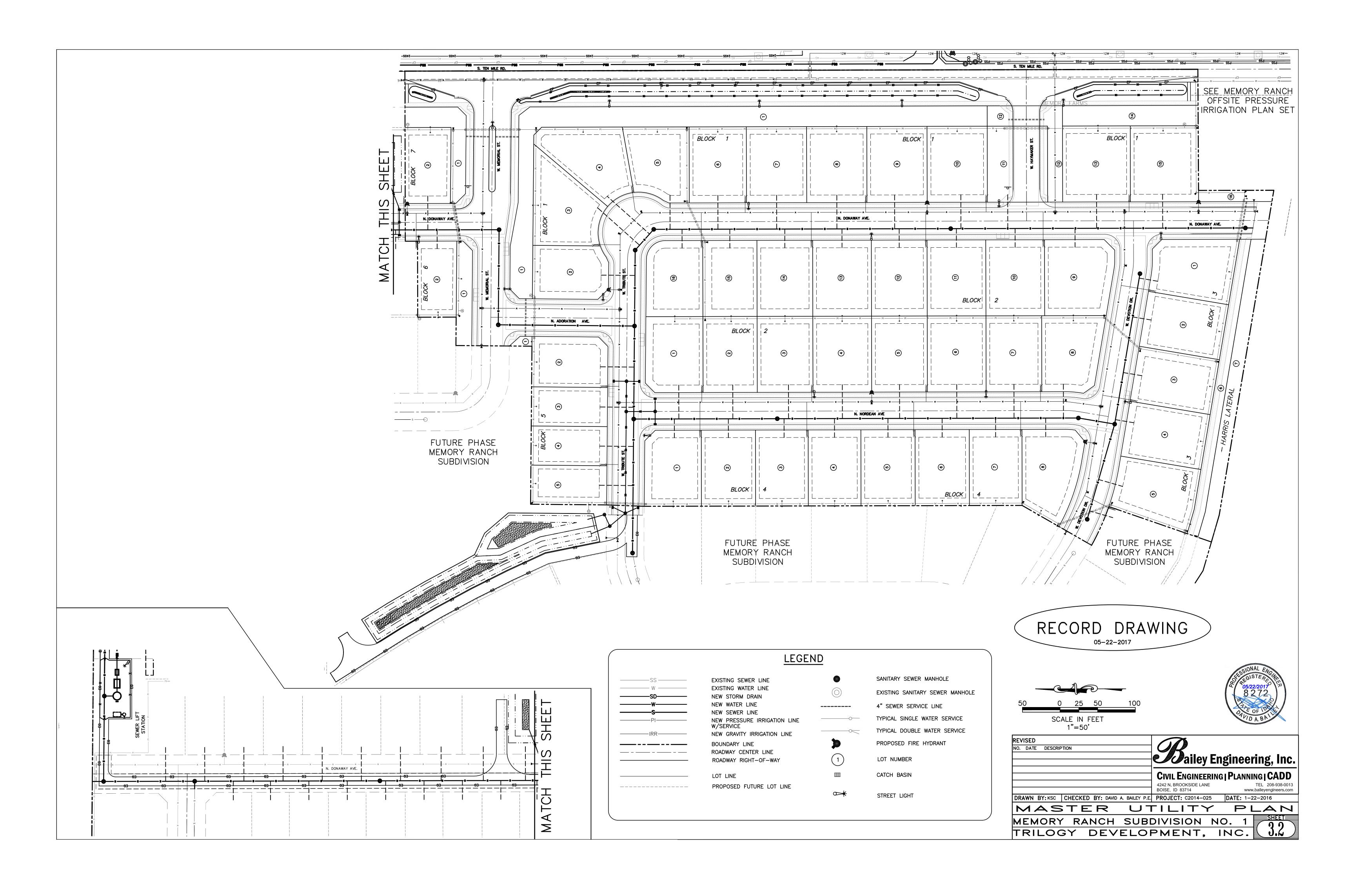
TEN MILE - SHÉET 4.1

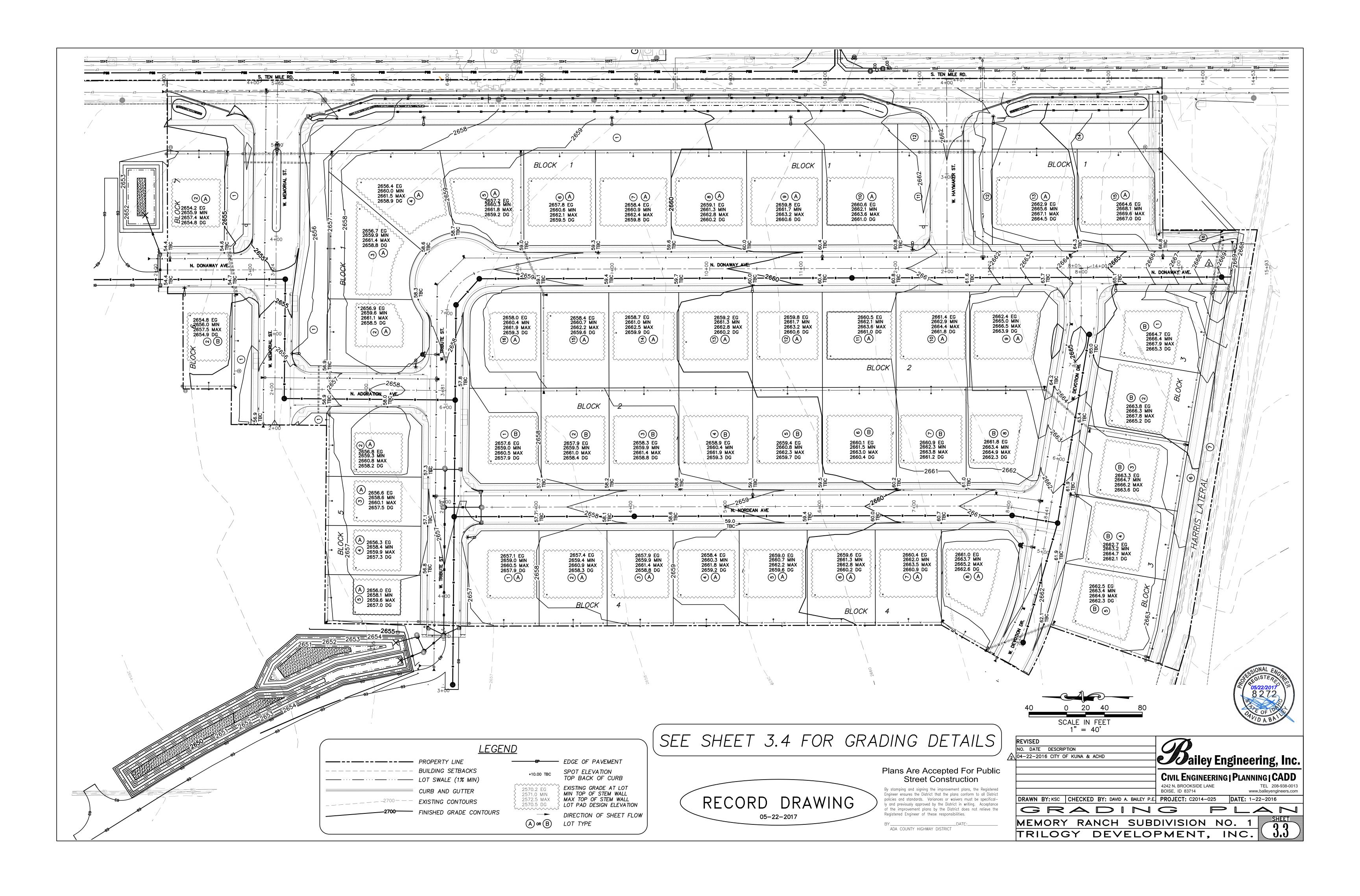


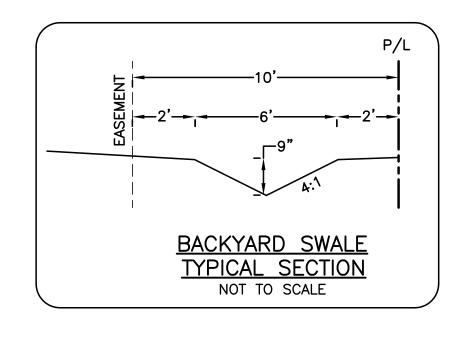


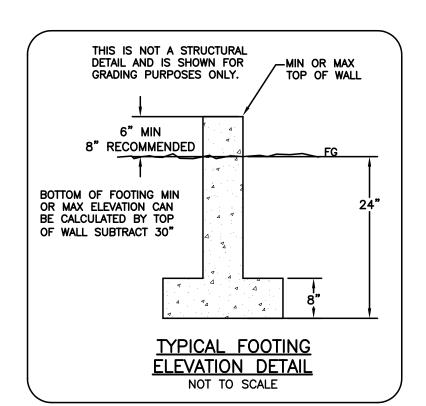


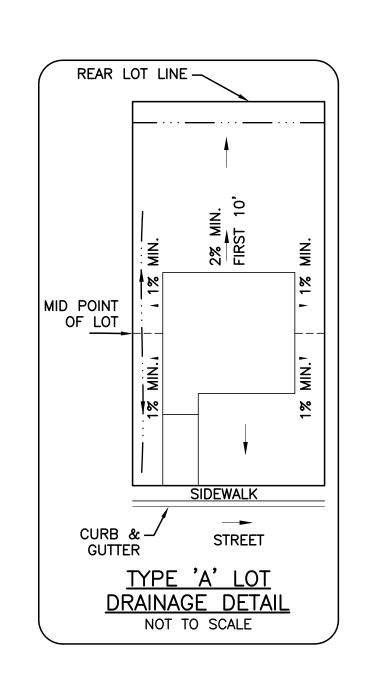


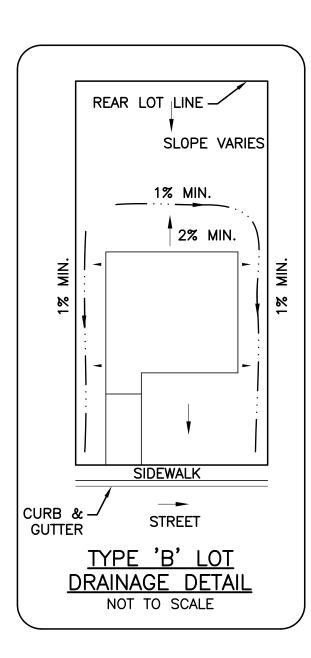












### SITE GRADING

1. ALL GRADING SHALL BE IN ACCORDANCE WITH THE APPROVED GRADING PLAN.

2. A CONSTRUCTION PROJECT SCHEDULE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND SHALL BE PERIODICALLY UPDATED IF CONDITIONS OR SCHEDULES CHANGE. CONSTRUCTION SHALL BE SCHEDULED TO MINIMIZE SOIL DISTURBANCE. ALL DISTURBED SURFACES SHALL BE STABILIZED IN A TEMPORARY OR PERMANENT MANNER AS APPROPRIATE DURING CONSTRUCTION TO PREVENT SOIL EROSION.

3. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY SITE CONSULTING, LLC DATED 03-13-2015.

5. PRIOR TO COMMENCING STRUCTURAL FILL, THE EXISTING SITE DEBRIS MUST BE REMOVED, THE NATIVE SOILS STRIPPED OF ALL ORGANIC MATERIAL, STOCKPILES OF SUITABLE MATERIAL SHALL BE SEGREGATED FROM UNSUITABLE MATERIALS. ALL WASTE AND HIGHLY ORGANIC OR OTHERWISE CONTAMINATED SOILS SHALL BE REMOVED FROM THE SITE AND NOT STOCKPILED FOR ANY PERIOD OF TIME. WHERE PRACTICAL,

4. ORGANIC SOILS SHALL BE REMOVED AS RECOMMENDED IN THE GEOTECHNICAL REPORT AND WASTED OR STOCKPILED FOR USE IN FINE

STOCKPILES OF MATERIALS TO BE USED AS STRUCTURAL FILL SHALL BE PLACED ON NATIVE, STRIPPED SOILS TO PREVENT CONTAMINATION.

6. EXACT REMOVAL DEPTHS OF ORGANIC MATERIALS SHALL BE DETERMINED DURING GRADING OPERATIONS BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE AND/OR THE PROJECT ENGINEER, AND SHALL BE BASED ON SUBGRADE SOIL TYPE, COMPOSITION, AND FIRMNESS OR SOIL

7. ALL MATERIAL USED FOR STRUCTURAL FILL SHALL MEET THE REQUIREMENTS FOR STRUCTURAL FILL AS DESCRIBED IN THE GEOLOGY AND GEOTECHNICAL REPORT. STRUCTURAL FILL MUST BE USED WHERE FILL HEIGHT EXCEEDS ONE (1) VERTICAL FOOT OR WHERE RECOMMENDED BY REFERENCED GEOTECHNICAL REPORT.

8. STRUCTURAL FILL SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GEOLOGY AND GEOTECHNICAL REPORT AND COMPACTION SHALL BE SUPERVISED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE AND/OR THE PROJECT ENGINEER. MATERIAL SHALL BE PLACED IN 8" LIFTS UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER.

9. ALL STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 FOR BUILDING LOTS OR D 698 FOR ROAD AREAS. ONE IN-PLACE DENSITY TEST PER LIFT SHALL BE CONDUCTED FOR EVERY 5000 SQUARE FEET OF LIFT AREA FOR BUILDING STRUCTURES (ONE PER LOT) OR FOR EVERY 100 LINEAR FEET OF LIFT AREA IN PARKING AND DRIVEWAY AREAS.

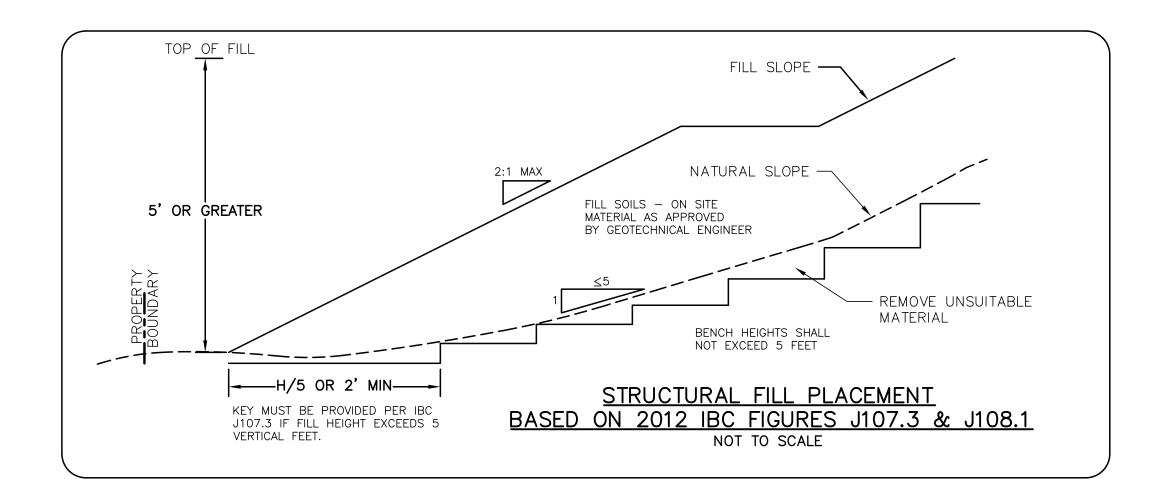
10. SHALLOW EXCAVATIONS THAT DO NOT EXCEED 4 FEET MAY BE CONSTRUCTED WITH SIDE SLOPES APPROACHING VERTICAL. BELOW THIS DEPTH, SLOPES SHALL NOT EXCEED 1-1/2 FOOT VERTICAL TO 1 FOOT HORIZONTAL.

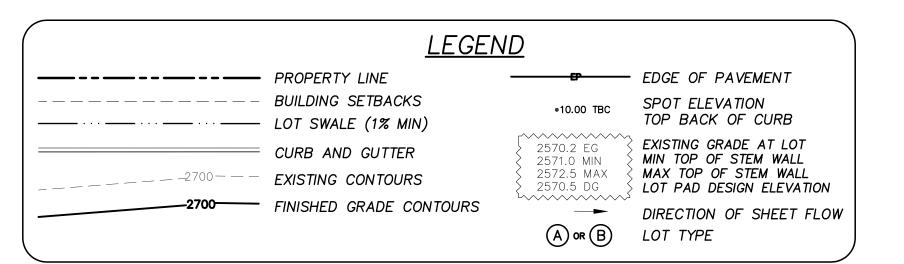
11. FINAL SITE GRADES (CUT OR FILL) SHALL NOT EXCEED 1 FOOT VERTICAL TO 2 FEET HORIZONTAL.

12. PRIOR TO PLACEMENT OF STRUCTURAL FILL, THE GROUND SHALL BE PREPARED IN ACCORDANCE WITH APPENDIX J, 'GRADING' OF THE INTERNATIONAL BUILDING CODE. FIGURE J107.3 AND AS DIRECTED BY THE PROJECT ENGINEER AND/OR THE GEOTECHNICAL ENGINEER.

13. ALL FINAL GRADING SHALL EMPLOY SLOPE ROUNDING AT TOPS OF SLOPES AND AT CHANGES IN HORIZONTAL SLOPE ALIGNMENT TO FACILITATE REVEGETATION AND PROVIDE AN ASTHETICALLY ACCEPTABLE APPEARANCE.

14. DURING ALL GRADING OPERATIONS AND UNTIL THE ESTABLISHMENT OF PERMANENT REVEGETATION, THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE APPROVED STORMWATER PREVENTION PLAN.





NOTES:

1. THE BUILDING ENVELOPES ARE BASED ON CITY OF KUNA SETBACKS APPROVED WITH THE MEMORY RANCH SUBDIVISION DEVELOPMENT.

2. THE MINIMUM TOP OF STEM WALL ELEVATIONS ARE BASED ON A 6" REVEAL, A 6" DROP IN THE FIRST TEN FEET, AND THEN 2% TO THE LOWEST TOP BACK OF CURB FOR THE LOT.

3. FOUNDATIONS MAY BE STEPPED A MAXIMUM OF 2 FEET.

4. REAR YARD SWALES SHOULD BE NO CLOSER THAN 10 FEET FROM THE STRUCTURE.

5. THE BUILDING CONTRACTOR SHALL REVIEW & FOLLOW FOUNDATION & CRAWL SPACE RECOMMENDATIONS IN THE GEOTECHNICAL ENGINEERING REPORT BY SITE CONSULTING, LLC DATED MARCH 13, 2015.

6. EACH BUILDER SHALL CONTINUE BACKYARD SWALE.

7. EXCEPTIONS TO THIS GRADING PLAN MAY BE APPROVED BY THE CITY OF KUNA BUILDING OFFICIAL AT ISSUANCE OF BUILDING PERMIT BASED UPON REVIEW OF AN ENGINEERED INDIVIDUAL LOT GRADING PLAN.

8. QUANTITIES ARE APPROXIMATE RAW VOLUMES WITHOUT ADJUSTMENT FOR COMPACTION:

## 

STRIP VOLUME 4"

ROAD EXCAVATION TO SUBGRADE

CUT TO SUBGRADE = ±4,650 cy

FILL TO SUBGRADE = ±421 cy

= ±7,687 cy CUT

NET =  $\pm 4,229$  cy CUT

NET EXCAVATE UTILITIES =  $\pm 983$  cy CUT

TOTAL  $= \pm 13,163$  cy CUT NET FILL TO FINAL GRADE ON LOTS FROM STRIPPED SURFACE  $= \pm 11,445$  cy FILL

STRIPPED SURFACE =  $\pm 11,445$  cy FILL

NET EXPORT =  $\pm 1,718$  cy CUT

ALL CALCULATIONS ARE RAW VOLUMES BASED ON ROAD AND FINAL SURFACE MODELS DEPICTED ON THIS GRADING PLAN. THESE NUMBERS MAY VARY DUE TO ACTUAL SOIL COMPACTION AND SOIL SHRINKAGE.



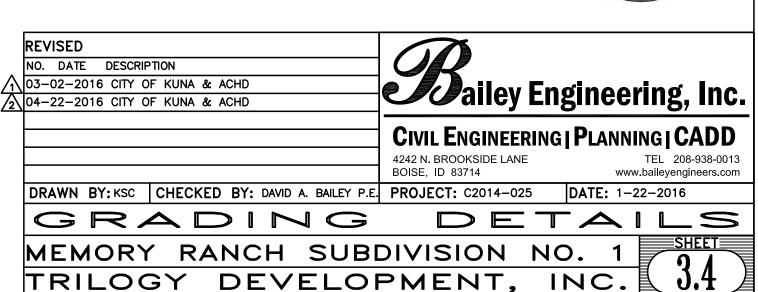


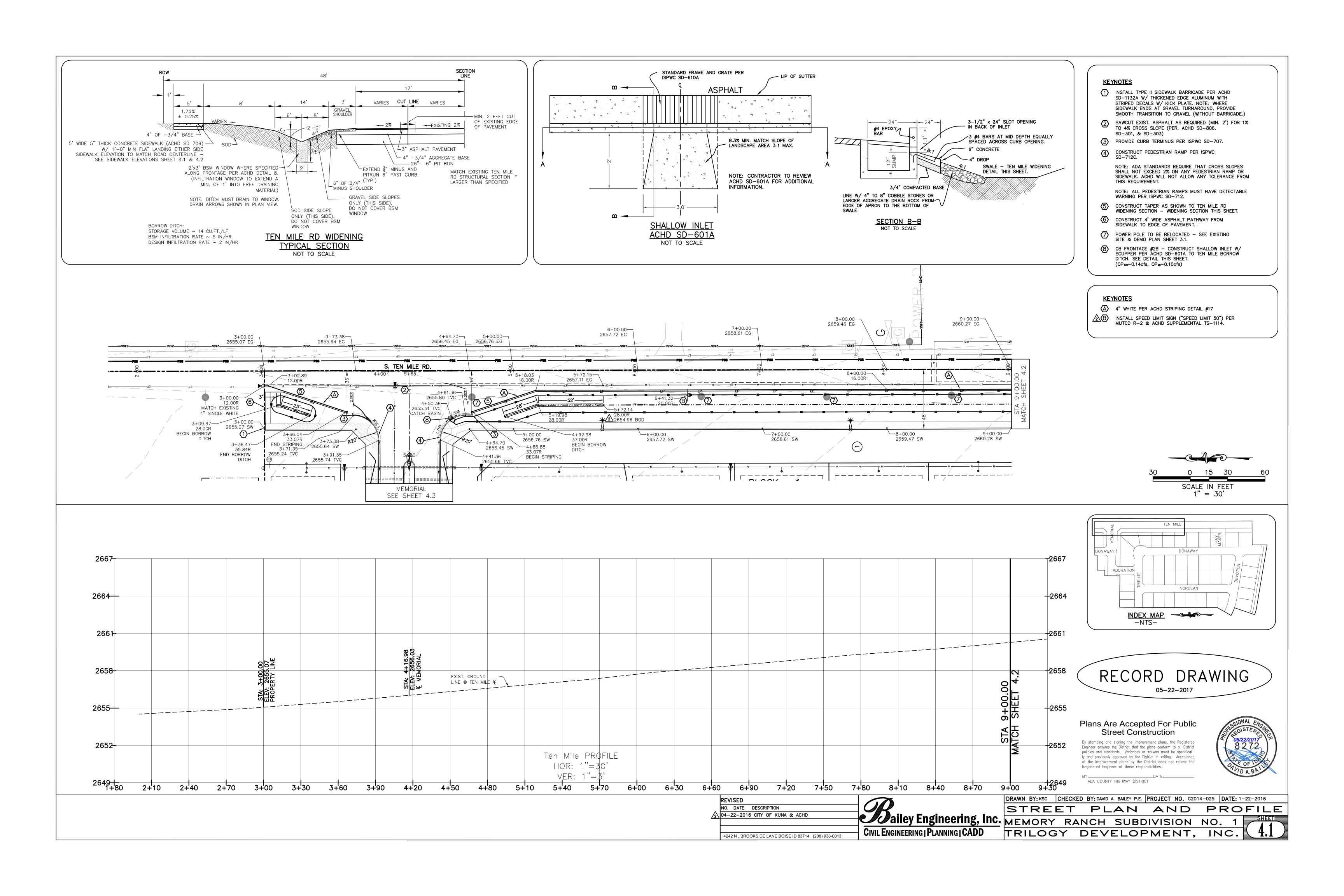
# Plans Are Accepted For Public Street Construction

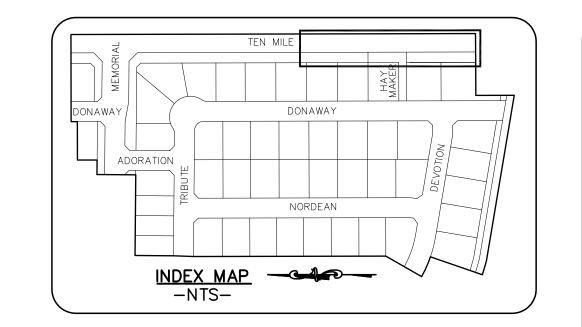
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BY\_\_\_\_\_DATE:.

ADA COUNTY HIGHWAY DISTRICT



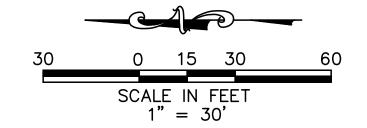


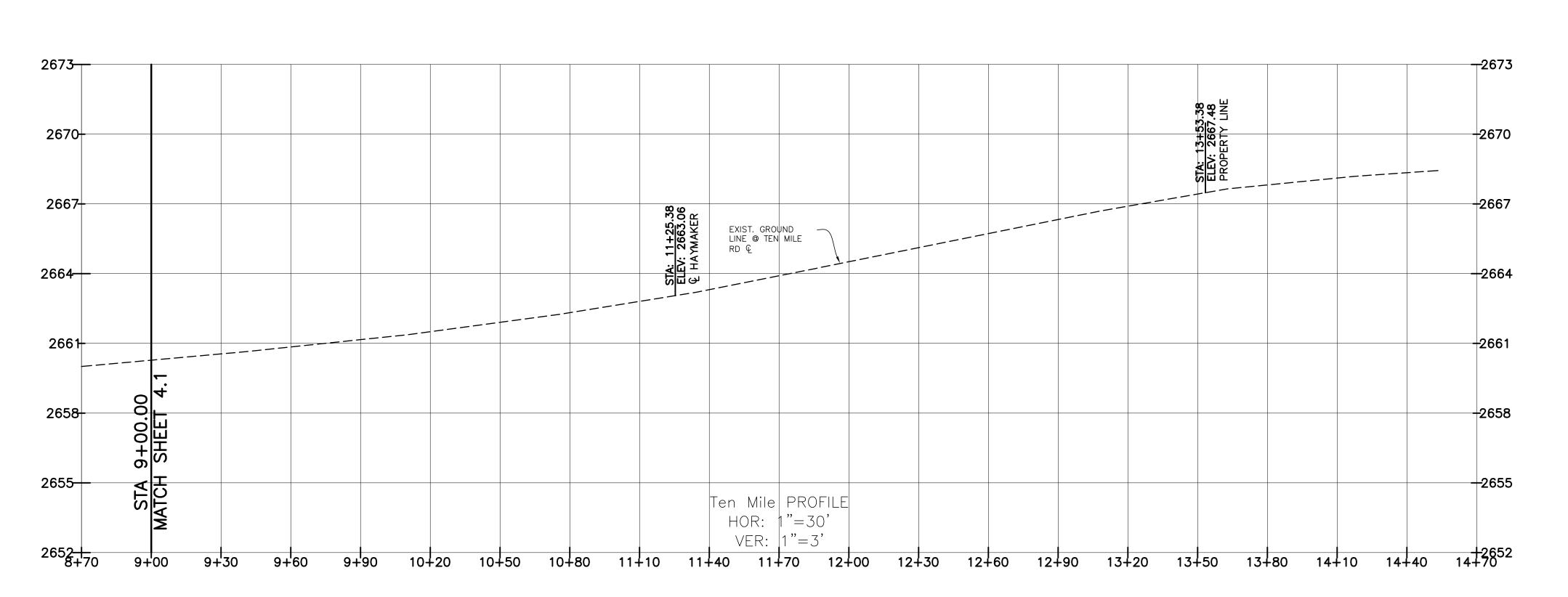


- 1) INSTALL TYPE II SIDEWALK BARRICADE PER ACHD SD-1132A W/ THICKENED EDGE ALUMINUM WITH STRIPED DECALS W/ KICK PLATE. NOTE: WHERE SIDEWALK ENDS AT GRAVEL TURNAROUND, PROVIDE SMOOTH TRANSITION TO GRAVEL (WITHOUT BARRICADE.)
- SAWCUT EXIST. ASPHALT AS REQUIRED (MIN. 2') FOR 1% TO 4% CROSS SLOPE (PER. ACHD SD-806, SD-301, & SD-303)
- PROVIDE CURB TERMINUS PER ISPWC SD-707.
- (4) CONSTRUCT PEDESTRIAN RAMP PER ISPWC SD-712C. NOTE: ADA STANDARDS REQUIRE THAT CROSS SLOPES SHALL NOT EXCEED 2% ON ANY PEDESTRIAN RAMP OR SIDEWALK. ACHD WILL NOT ALLOW ANY TOLERANCE FROM THIS REQUIREMENT.
- NOTE: ALL PEDESTRIAN RAMPS MUST HAVE DETECTABLE WARNING PER ISPWC SD-712.
- CONSTRUCT TAPER AS SHOWN TO TEN MILE RD WIDENING SECTION SEE SHEET 4.1.
- 6 CONSTRUCT 4' WIDE ASPHALT PATHWAY FROM SIDEWALK TO EDGE OF PAVEMENT.
- EXISTING POWER POLE TO BE RELOCATED SEE EXISTING SITE & DEMO SHEET 3.1.

## <u>KEYNOTES</u>

A 4" WHITE PER ACHD STRIPING DETAIL #17





10+89.34—

33.05R 10+89.34-

2662.2/6 TVC

11+07.38—

2662.19 TVC

END STRIPING 2662.47 SW

16.05R

2662.48 EG

11+61.63—

2664.51 EG

2663.74 EG

S. TEN MILE RD.

HAYMAKER SEE SHEET 4.7 13+00.00-

\_2666.53 EG

-12+11.63 29.51R **2** 

2666.53 SW

16.05R \

11+92.05 35.84R BEGIN BORROW 11+63.06 DITCH

2663.74 \$W —11+63.06 DITCH —11+48.89 33.05R

2662.45 TVC

2662.7/5 TVC BEGIN STRIPING

2667.48 EG

16.00R

28.00R

END BORROW

13+00.00— 2664.78 BOD

10+00.00— 2661.27 EG

10+00.00-

10+58.13—

35.84R

2661.27 SW

END BORROW DITCH

RECORD DRAWING 05-22-2017

# Plans Are Accepted For Public Street Construction

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STREET PLAN AND PROMEMORY RANCH SUBDIVISION NO. 1 REVISED NO. DATE DESCRIPTION 04-22-2016 CITY OF KUNA & ACHD CIVIL ENGINEERING | PLANNING | CADD 4242 N . BROOKSIDE LANE BOISE ID 83714 (208) 938-0013

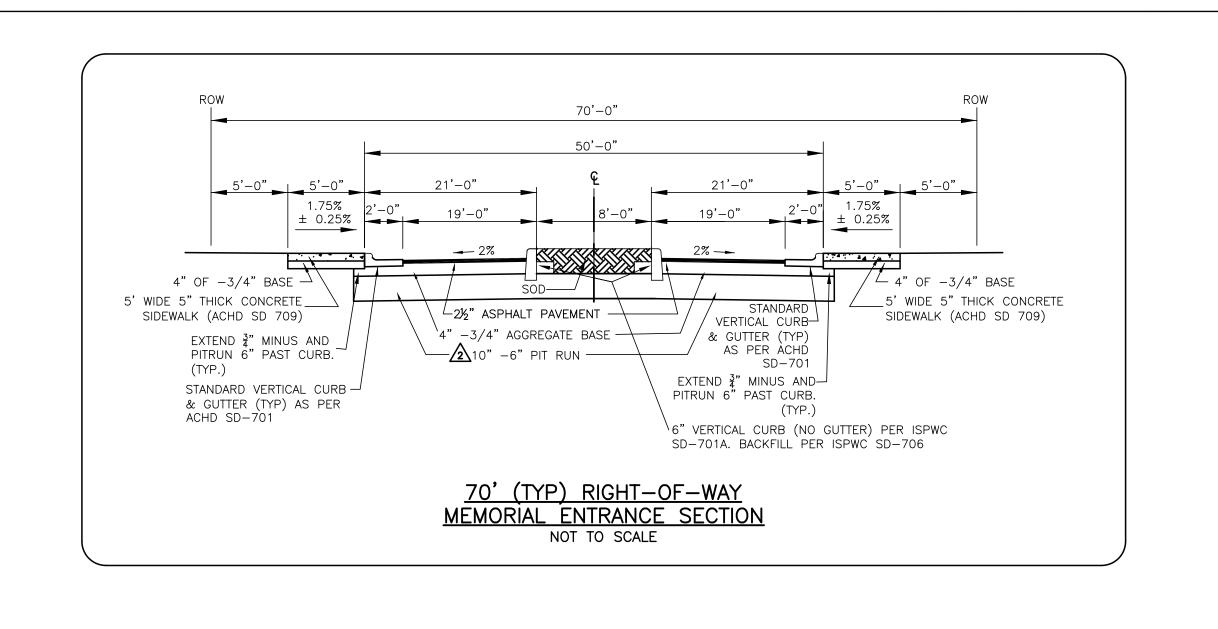
MATCH EXISTING

SINGLE WHITE

DRAWN BY: KSC CHECKED BY: DAVID A. BAILEY P.E. PROJECT NO. C2014-025 DATE: 1-22-2016 STREET PLAN AND PROFILE

TRILOGY DEVELOPMENT, INC.

ADA COUNTY HIGHWAY DISTRICT



2655.19 TRC

GRADE BREAK 3 / 2656.04 TRC

2655.19 TRC GRADE BREAK

3+37.25— 2655.04 TRC 3+39.91—

2655.03 TRC

2655.02 TRC

W. MEMORIAL ST.

2+76.00 2656.04 TRC GRADE BREAK

2+20.01 2656.79 TRC 1 2+56.01 A 2656.63 TRC

ADORATION

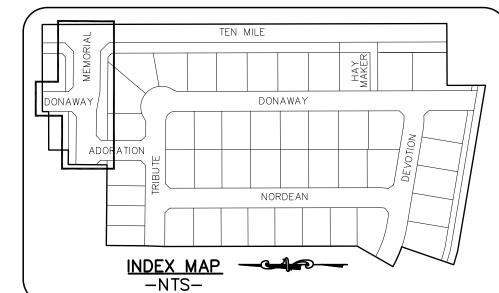
SEE SHEET 4.4

2+00.00— 2656.95 TRC

2+00.00— 2656.95 TRC BEGIN CONST.

BEGIN CONST.

3+45.88— 2654.72 TRC



### **KEYNOTES**

- 1) INSTALL TYPE II SIDEWALK BARRICADE PER ACHD SD-1132A W/ THICKENED EDGE ALUMINUM WITH STRIPED DECALS W/ KICK PLATE. NOTE: WHERE SIDEWALK ENDS AT GRAVEL TURNAROUND, PROVIDE SMOOTH TRANSITION TO GRAVEL (WITHOUT BARRICADE.)
- (2) INSTALL TYPE III TERMINUS BARRICADE & "THIS ROAD WILL BE EXTENDED IN THE FUTURE" SIGN PER ACHD SD-1132B W/ THICKENED EDGE ALUMINUM WITH STRIPED DECALS.
- CONSTRUCT MID-BLOCK PEDESTRIAN RAMP PER ISPWC SD-712G.
- CONSTRUCT PEDESTRIAN RAMP PER ISPWC SD-712C.

THIS REQUIREMENT.

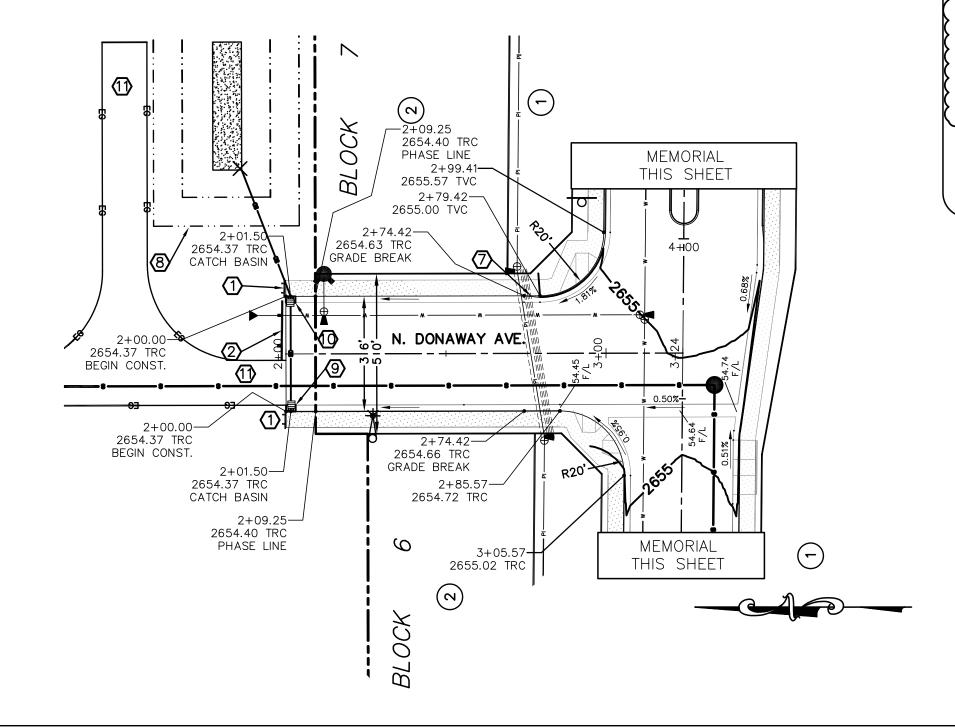
- CONSTRUCT PEDESTRIAN RAMP FOR ROLLED CURB. SEE DETAIL SHEET 4.8. NOTE: ADA STANDARDS REQUIRE THAT CROSS SLOPES SHALL NOT EXCEED 2% ON ANY PEDESTRIAN RAMP OR
  - NOTE: ALL PEDESTRIAN RAMPS MUST HAVE DETECTABLE WARNING PER ISPWC SD-712.

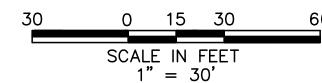
SIDEWALK. ACHD WILL NOT ALLOW ANY TOLERANCE FROM

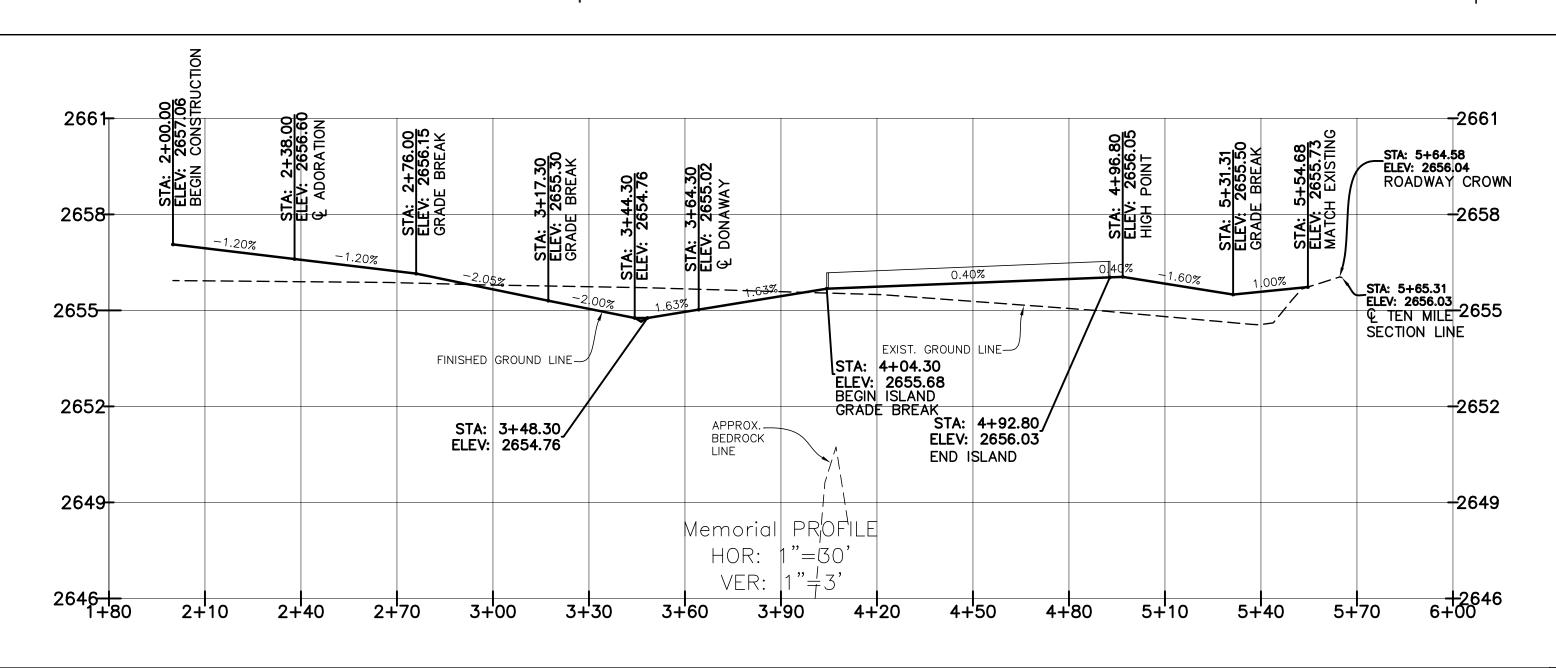
- (6) CONSTRUCT VALLEY GUTTER PER ACHD SD-708.
- CONSTRUCT 5' TRANSITION FROM ROLLED CURB TO VERTICAL CURB.
- CONSTRUCT TEMPORARY DRAINAGE POND SEE
- 2650.96
  CB TEMP #2 2651.17 INV. 32 LF 12" C-900 90.22%
  TO CB TEMP #1 W/1' SUMP PER ACHD SD-604A TYPE
- IV. (QP<sub>100</sub>=1.15cfs, QP<sub>20</sub>=0.82cfs)
  2650.95

  CB TEMP #1 -2651.10 INV. IN & OUT. 42 LF 12" SDR-35

  0.02% @0.22% TO TEMP DRAINAGE POND W/1' SUMP PER ACHD SD-604A TYPE IV. INV @ POND: 2651.01
  (QP<sub>100</sub>=0.32cfs, QP<sub>20</sub>=0.23cfs)
  2650.94
- CONSTRUCT 14' WIDE ACHD ACCESS ROAD SEE SECTION & PLAN VIEW DETAILS SHEET 4.8.
- INSTALL SPEED LIMIT SIGN ("SPEED LIMIT 20") PER MUTCD R-2 & ACHD SUPPLEMENTAL TS-1114.







2

2655.57 TVC

-4+04.30

5+28.81<del>-</del>

4+96.80

**└**─4+88.30

2655.24 TVC

2655.91 TVC

HIGH POINT

2655.65 TVC 5+08.81-

GRADE BREAK 2655.74 TVC

-32.00L

2655.97 TVC HIGH POINT

5+09.81-

5+26.40

5+29.80 2655.80 TVC

2655.51 TVC CATCH BASIN

<del>---</del>4+01.80

. ∠<sub>4+08.80</sub> W. MEMORIAL ST.

GRADE BREAK
—3+99.30
2655.35 TRC

3+92.03 2655.30 TRC

2655.00 TVC

4+04.80—

3+89.36—

3+48.51

BLOCK

-3+44.51 2655.01 TRC

2655.01 TRC

DONAWAY

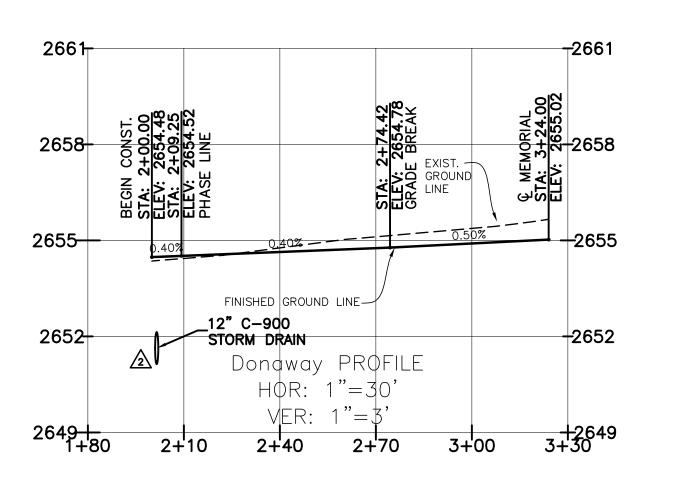
THIS SHEET

TEN MILE

SEE SHEET 4.1

TEN MILE

SEE SHEET 4.1





# Plans Are Accepted For Public Street Construction

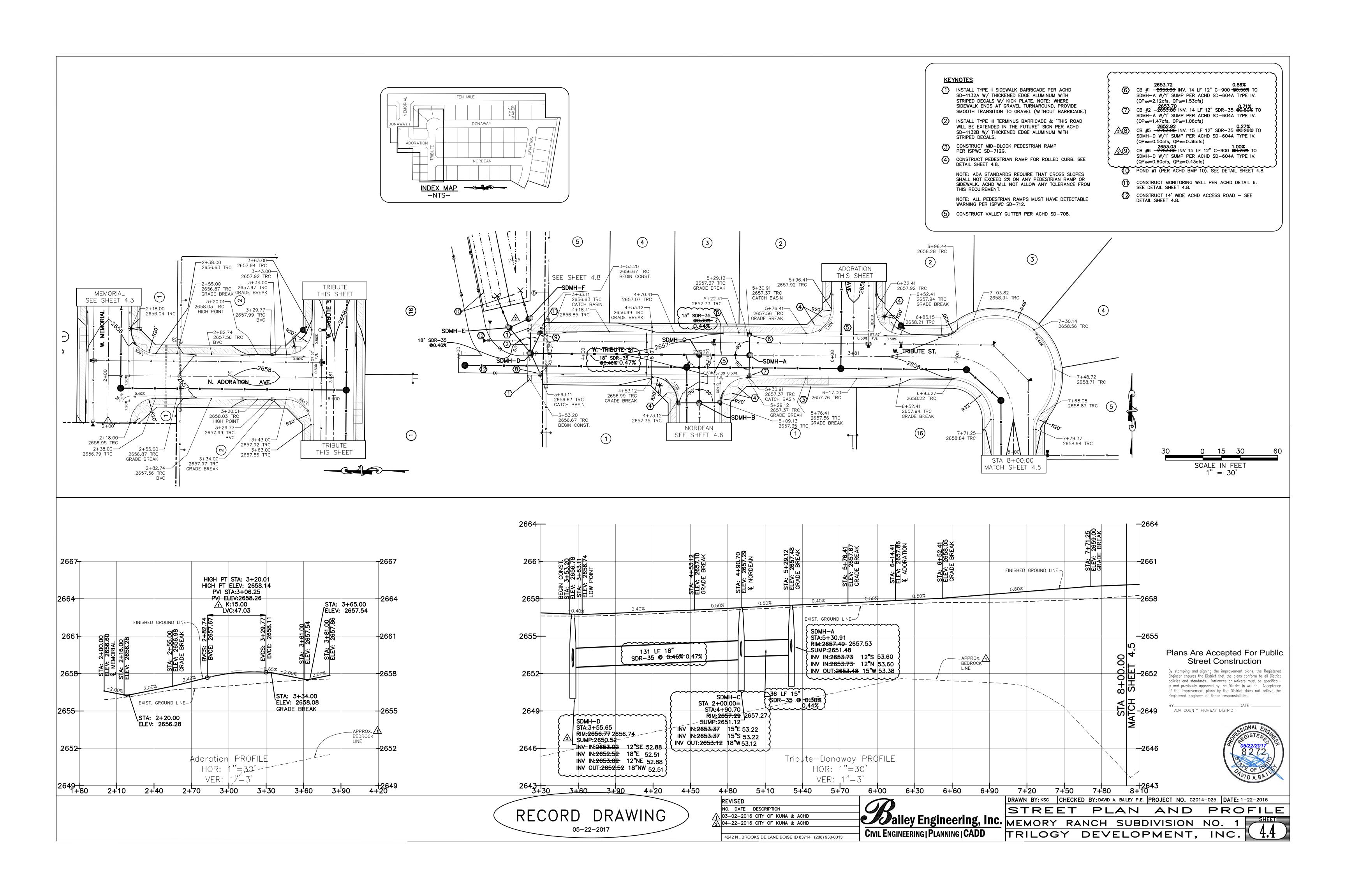
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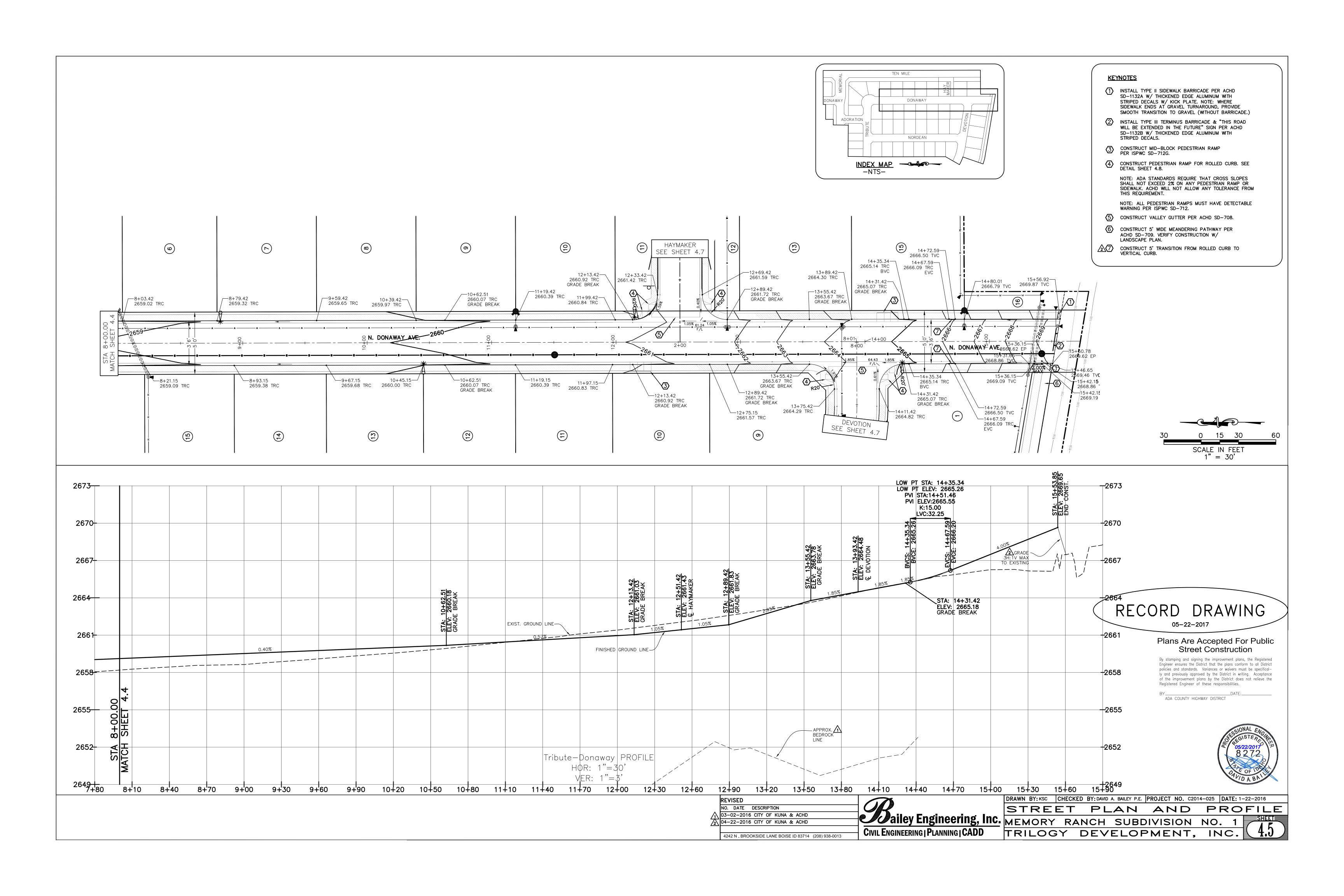
ADA COUNTY HIGHWAY DISTRICT

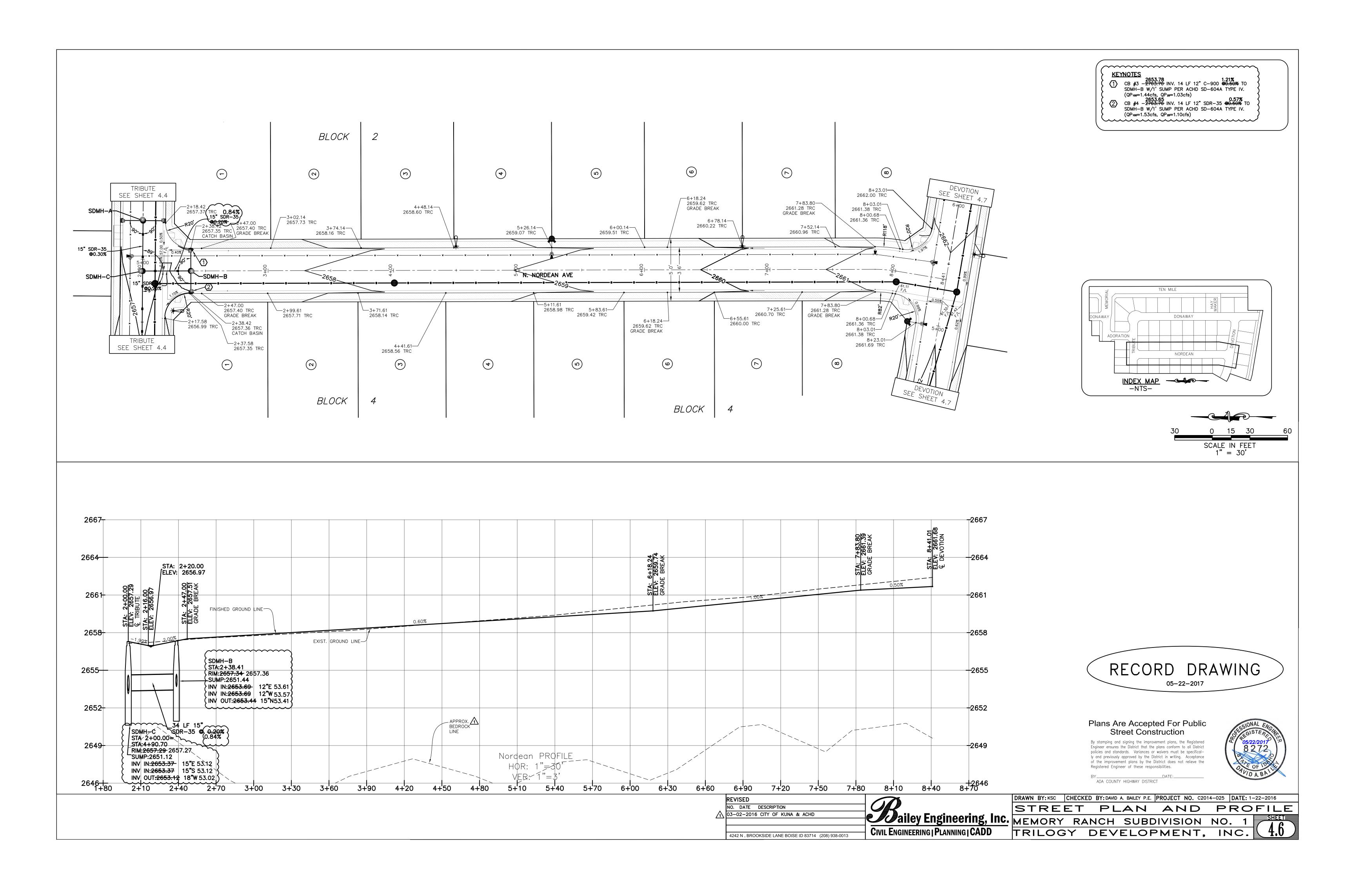


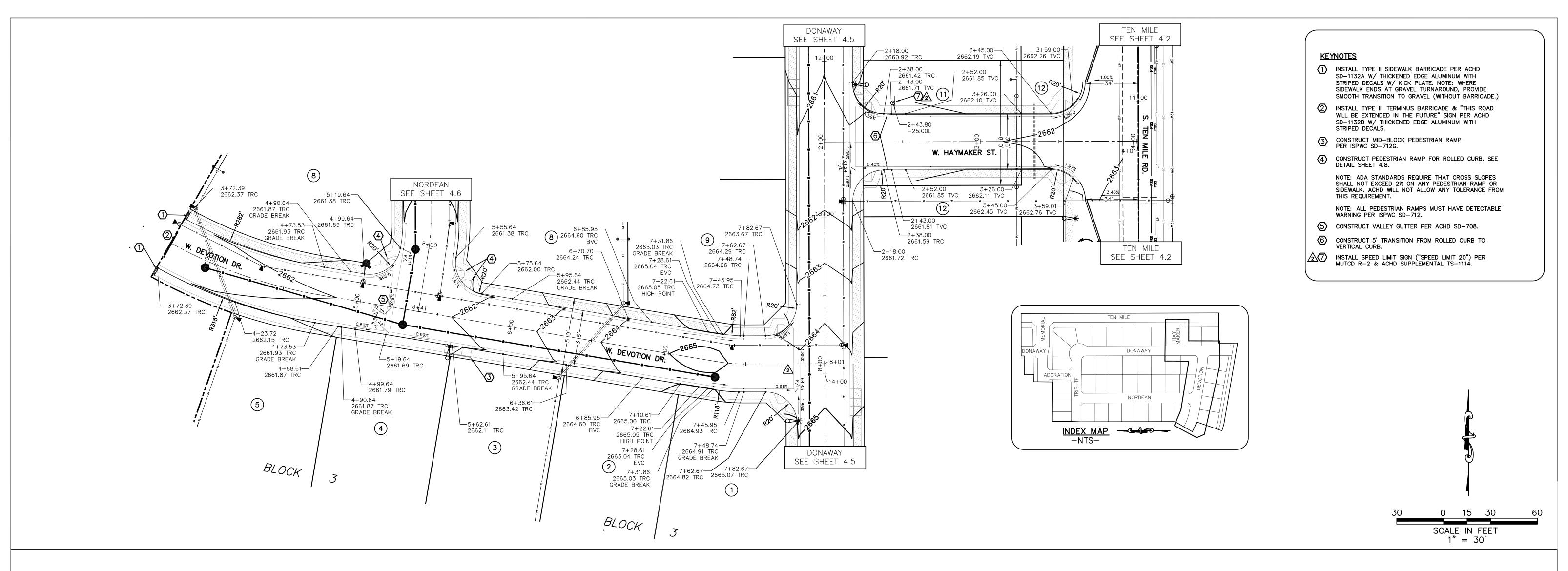
REVISED NO. DATE DESCRIPTION 04-22-2016 CITY OF KUNA & ACHD CIVIL ENGINEERING | PLANNING | CADD 4242 N . BROOKSIDE LANE BOISE ID 83714 (208) 938-0013

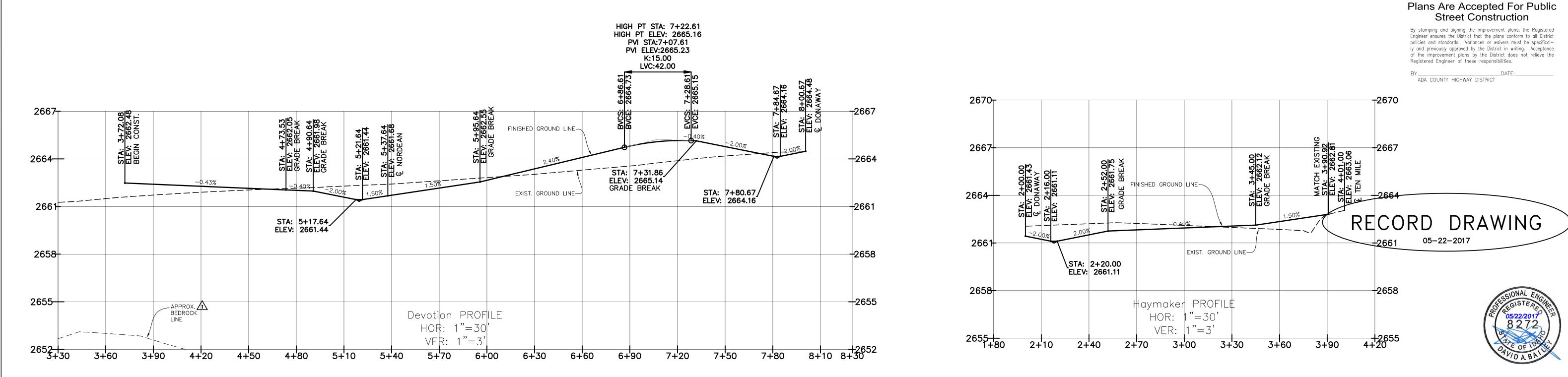
STREET PLAN AND PROMEMORY RANCH SUBDIVISION NO. 1 DRAWN BY: KSC | CHECKED BY: DAVID A. BAILEY P.E. | PROJECT NO. C2014-025 | DATE: 1-22-2016 STREET PLAN AND PROFILE TRILOGY DEVELOPMENT, INC.











REVISED

NO. DATE DESCRIPTION

03-02-2016 CITY OF KUNA & ACHD

04-22-2016 CITY OF KUNA & ACHD

4242 N . BROOKSIDE LANE BOISE ID 83714 (208) 938-0013

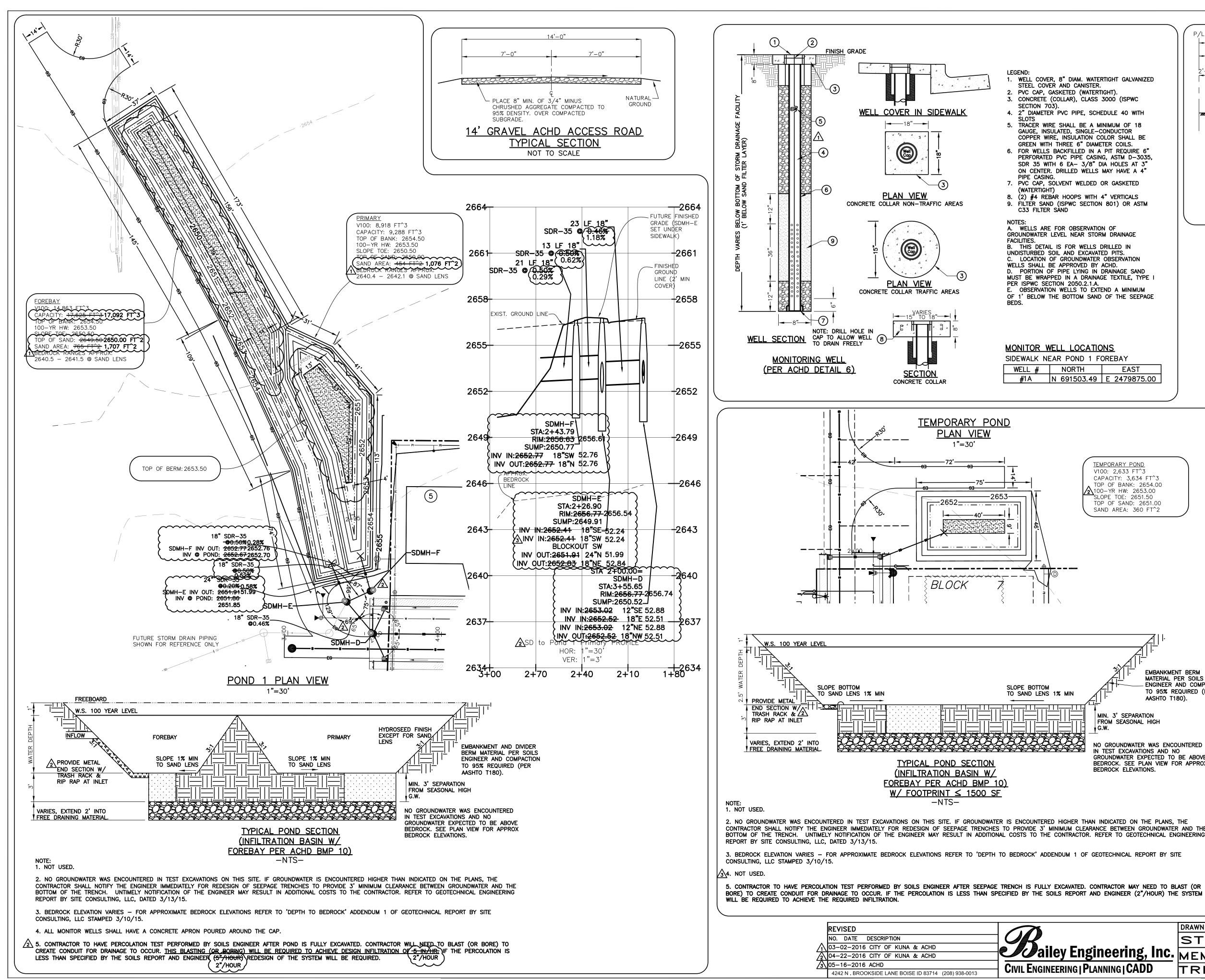
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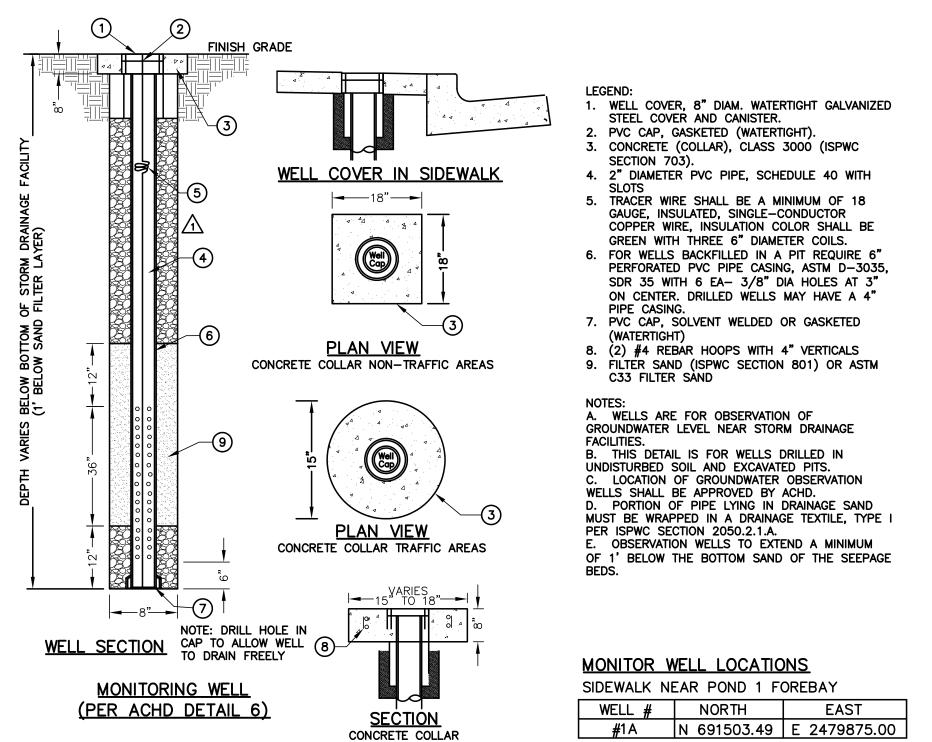
TRILOGY DEVELOPMENT, INC.

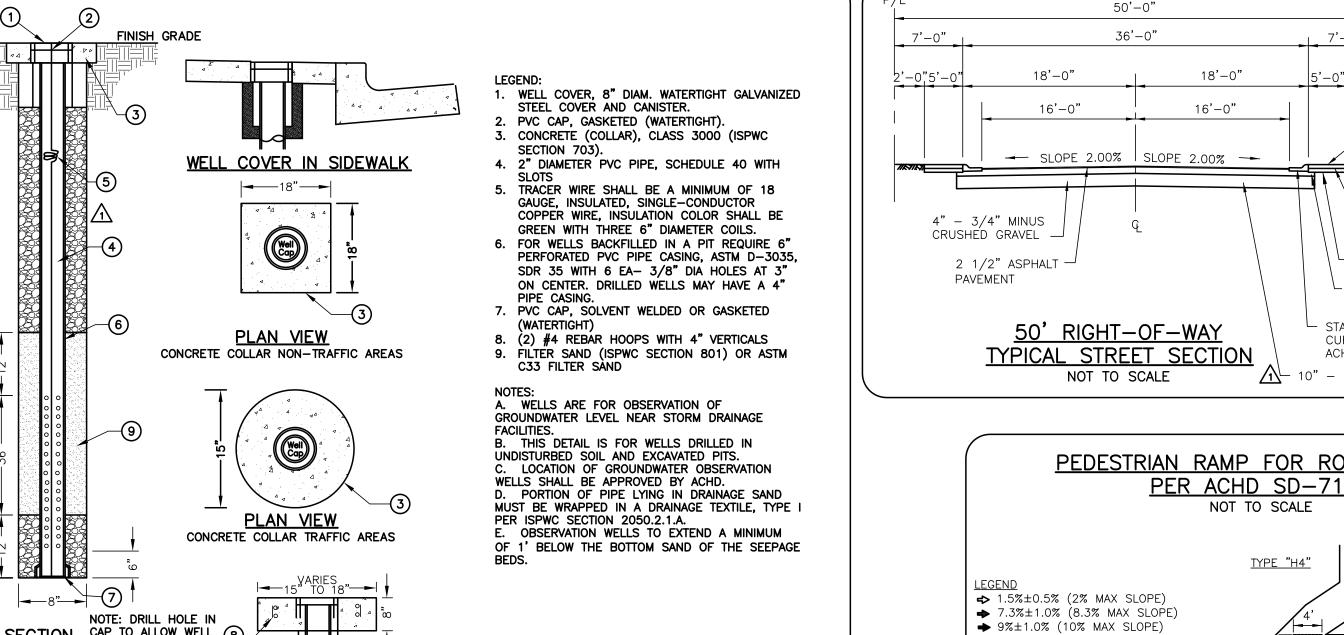
ailey Engineering, Inc. MEMORY RANCH SUBDIVISION NO. 1

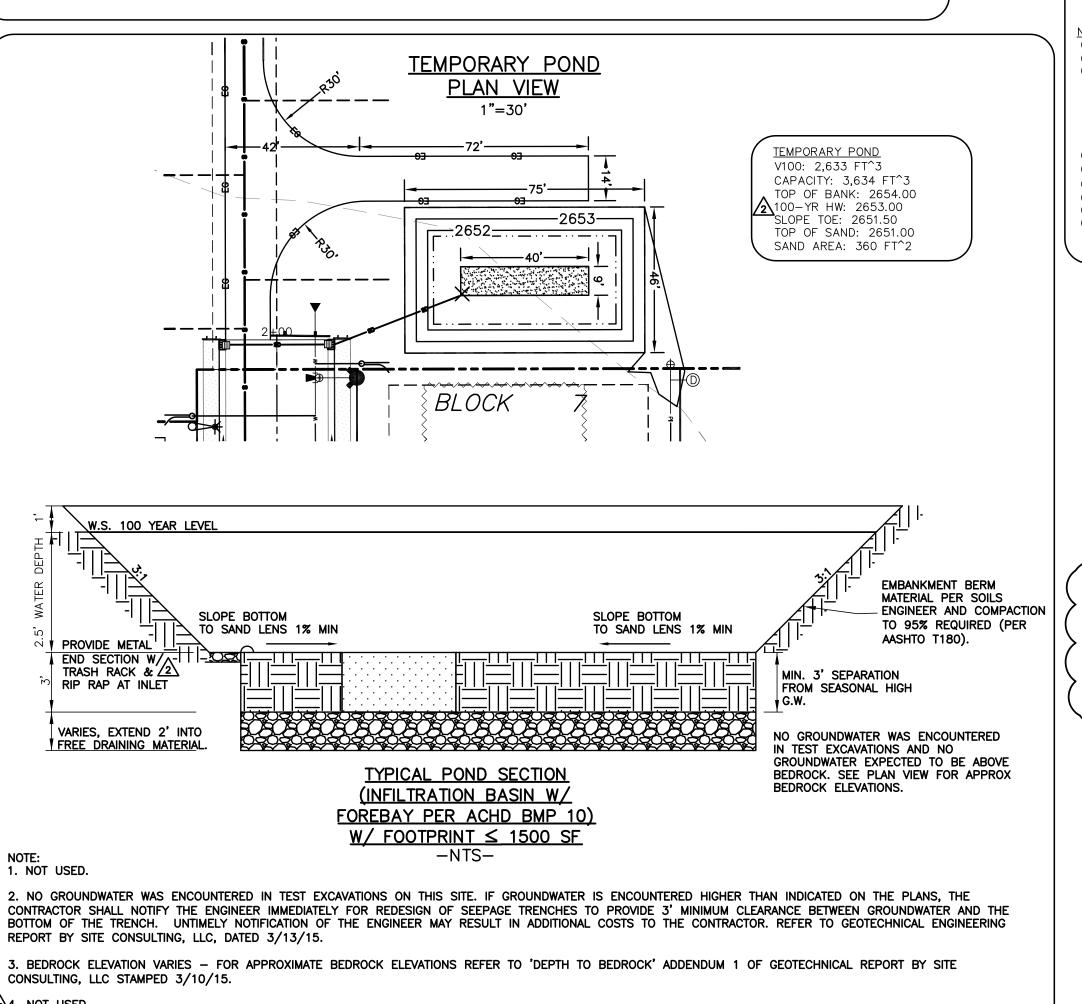
CIVIL ENGINEERING | PLANNING | CADD

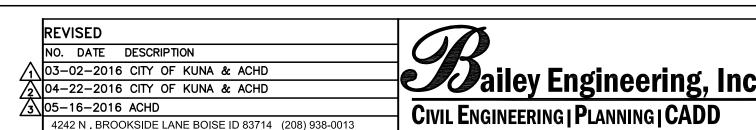
STREET PLAN AND PROFILE











0.25% PER ACHD SD 709 └─ 5" THICK CONCRETE SIDEWALK (TYP.) -4" - 3/4" MINUS CRUSHED GRAVEL (COMPACTION REQUIRED) LEXTEND GRAVEL AND PIT RUN 6" PAST CURB. (TYP.) STANDARD ROLLED CURB & GUTTER (TYP.) AS PER ACHD SD 702 10" - 6" MINUS PIT RUN PEDESTRIAN RAMP FOR ROLLED CURB PER ACHD SD-712H

SLOPE SIDEWALK 1.75% ±

RAMPS FOR CORNERS WITH A MIN. 15' RADII AND UTILIZING ROLLED CURB. RAMPS ARE CONTAINED WITHIN THE CURB RADIUS. RAMP DIMENSIONS CURB TYPE= STANDARD 3" ROLLED CURB PER ISPWC SD-702 THROAT DEPTH= 4' FROM FACE OF CURB THROAT WIDTH= 4' MIN WING= 3' TRAVERSABLE WING= 1.5' NON TRAVERSABLE RAMPS REQUIRE A MINIMUM 4'x4' LANDING IN SIDEWALK @ 1.5% +/- 0.5% (2% MAX SLOPE) RAMPS SHALL NOT EXCEED 12:1 (8.3%) SLOPE & TRAVERSABLE WINGS 10:1 (10%). NON TRAVERSABLE AREA – PATTERNED CONCRETE/LAWN/GRAVEL/ETC. 3 4'x4' FLAT STREET SIDE LANDING REQUIRED CURB IS NOT REQUIRED TO BE FULL—HEIGHT ① DETECTABLE WARNING PER ISPWC SD-712

# RECORD DRAWING

REISSUE ENTIRE SHEET 11 - 10 - 2016

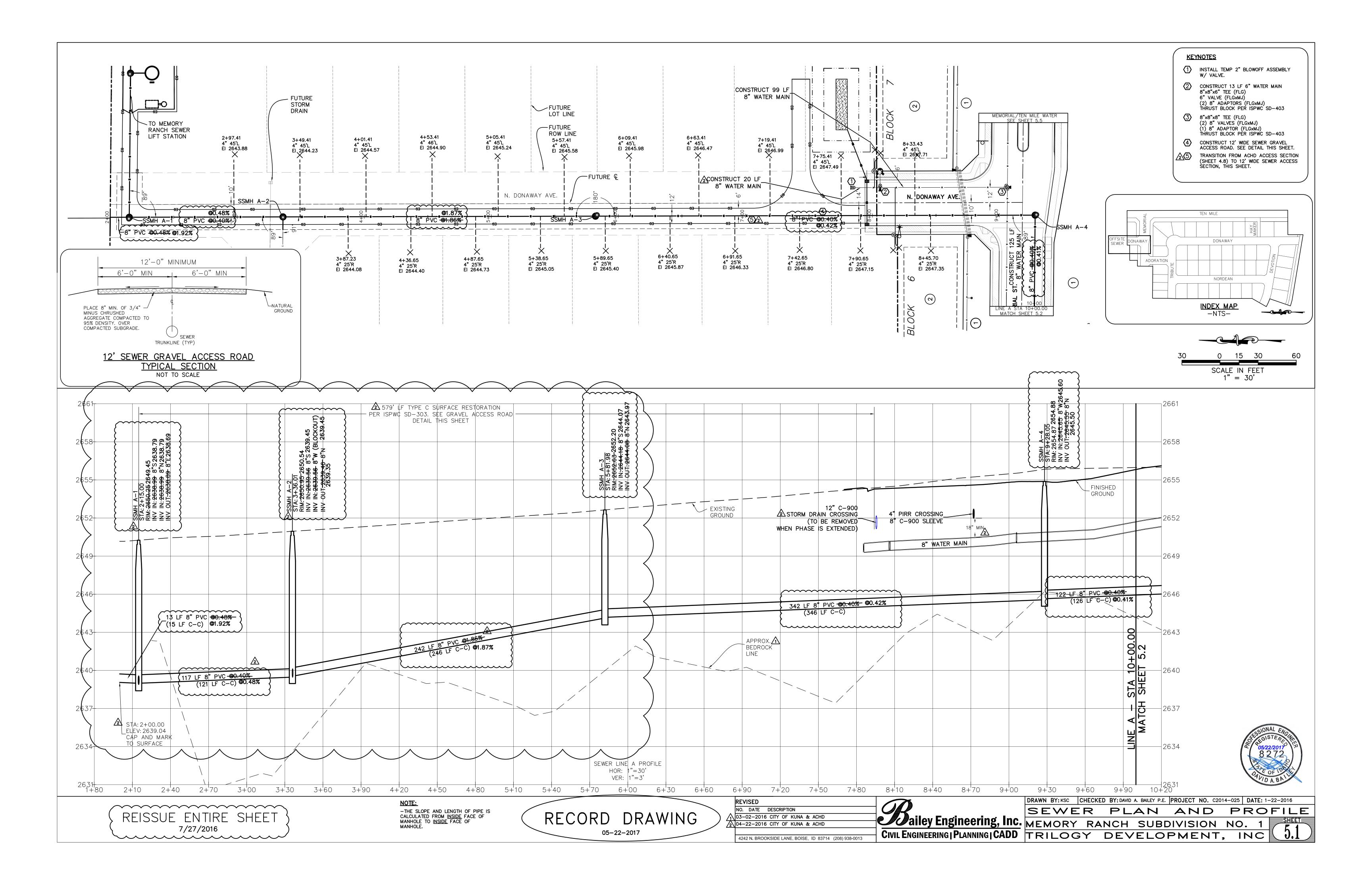
### Plans Are Accepted For Public **Street Construction**

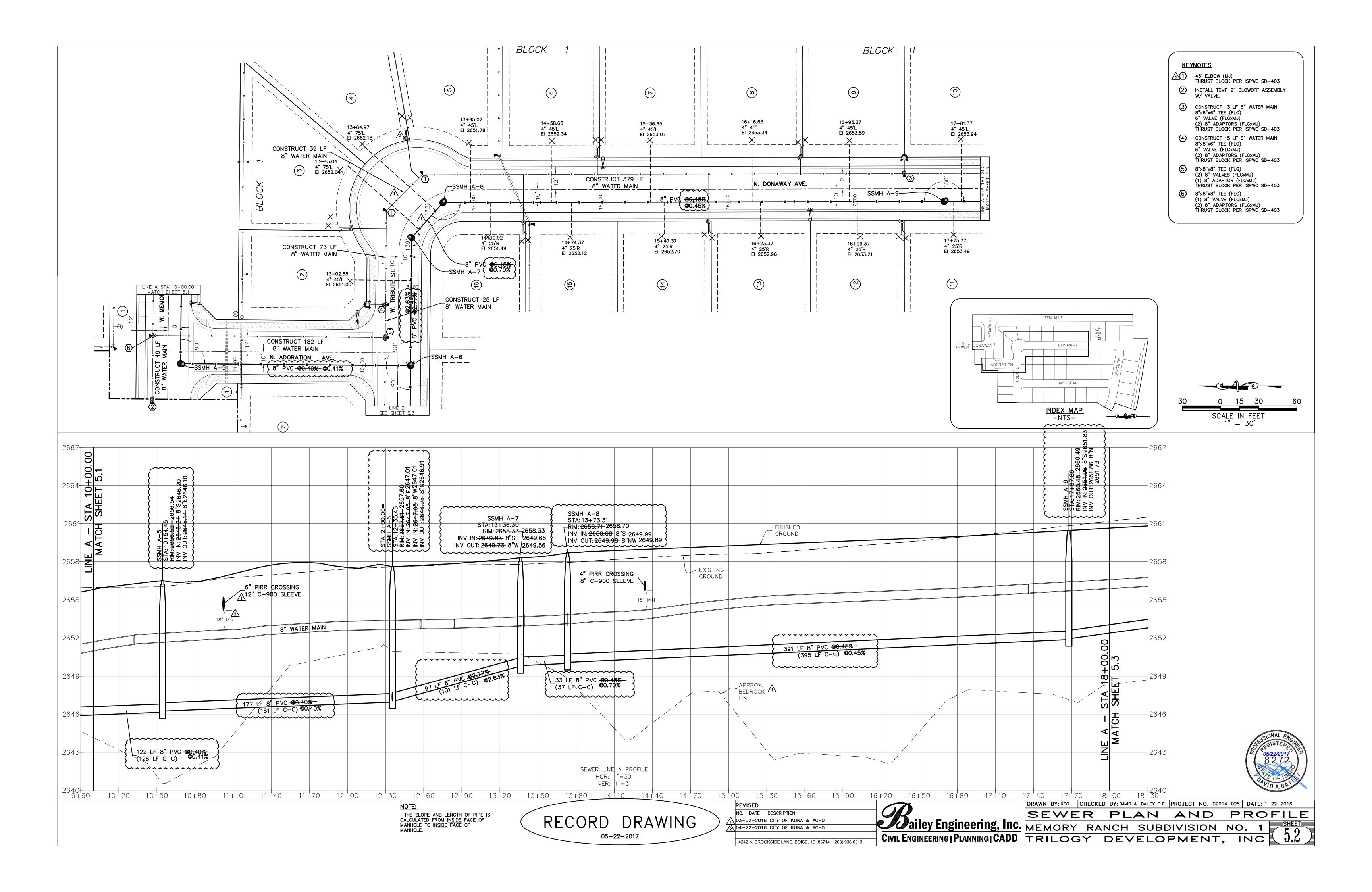
By stamping and signing the improvement plans, the Registered Engineer ensures the District that the plans conform to all District policies and standards. Variances or waivers must be specifically and previously approved by the District in writing. Acceptance of the improvement plans by the District does not relieve the Registered Engineer of these responsibilities.

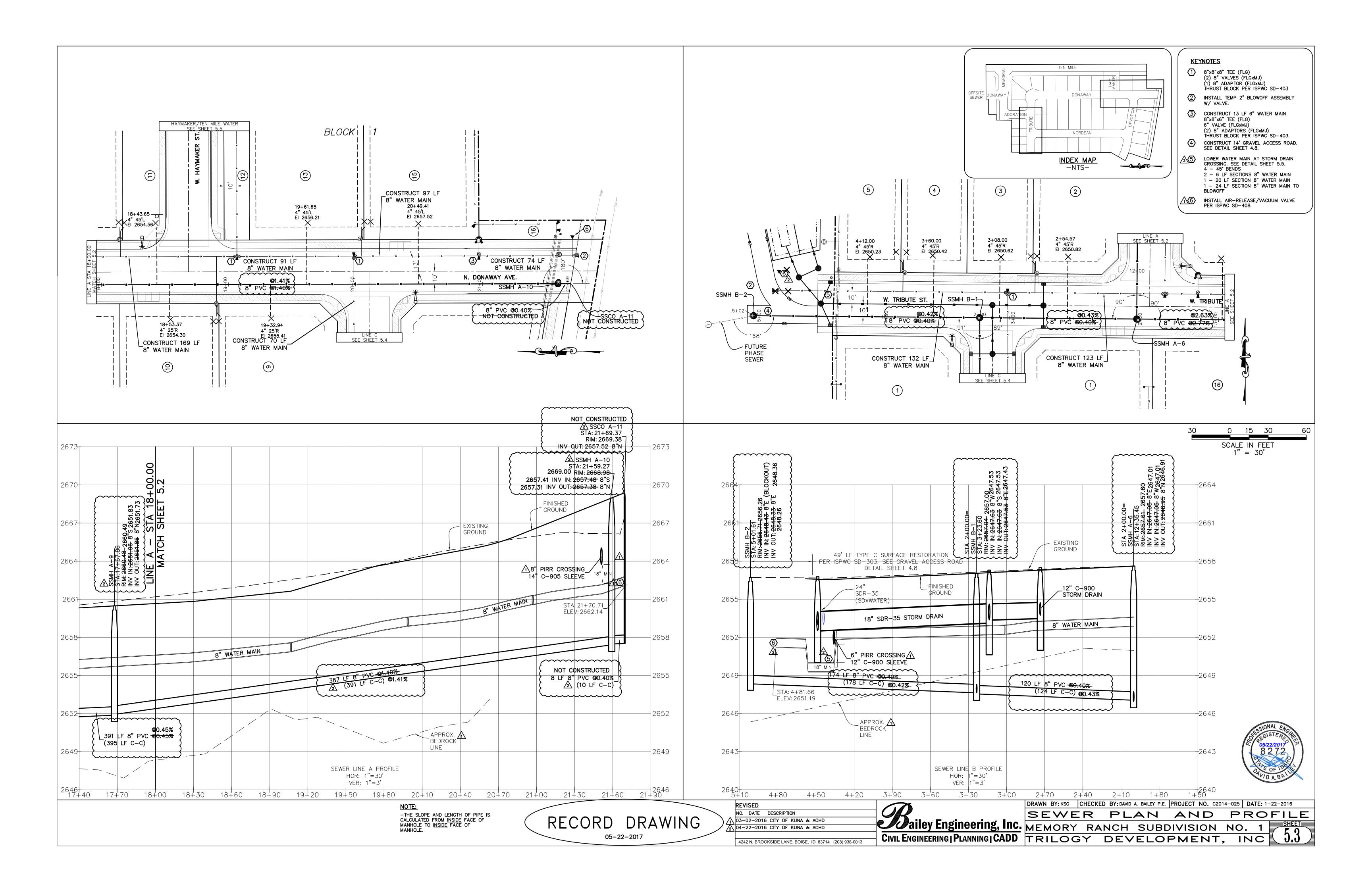
ADA COUNTY HIGHWAY DISTRICT

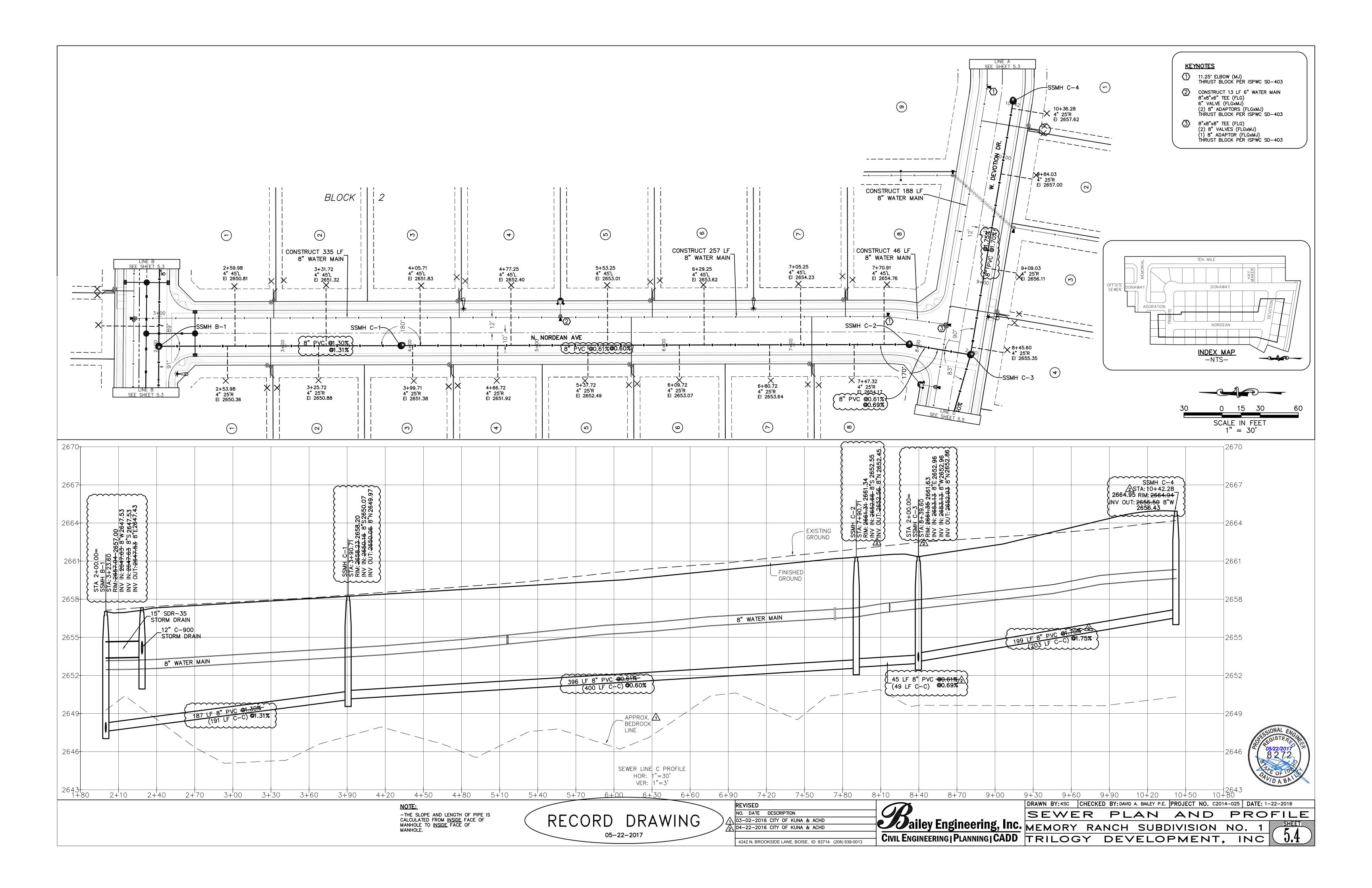


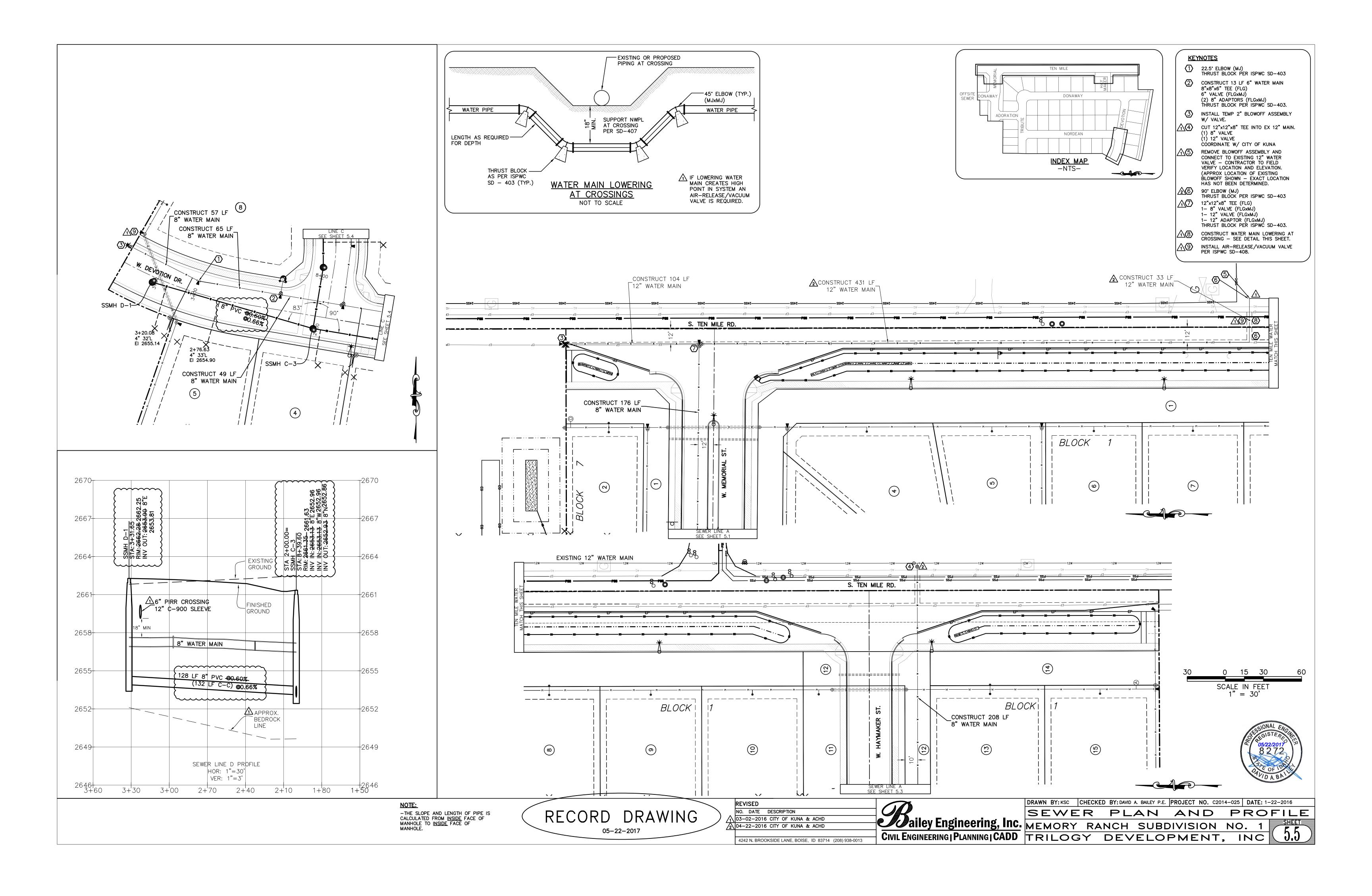
DRAWN BY: KSC | CHECKED BY: DAVID A. BAILEY P.E. | PROJECT NO. C2014-025 | DATE: 1-22-2016 STREET AND DRAINAGE DETAILS ailey Engineering, Inc. MEMORY RANCH SUBDIVISION NO. 1 TRILOGY DEVELOPMENT, INC.

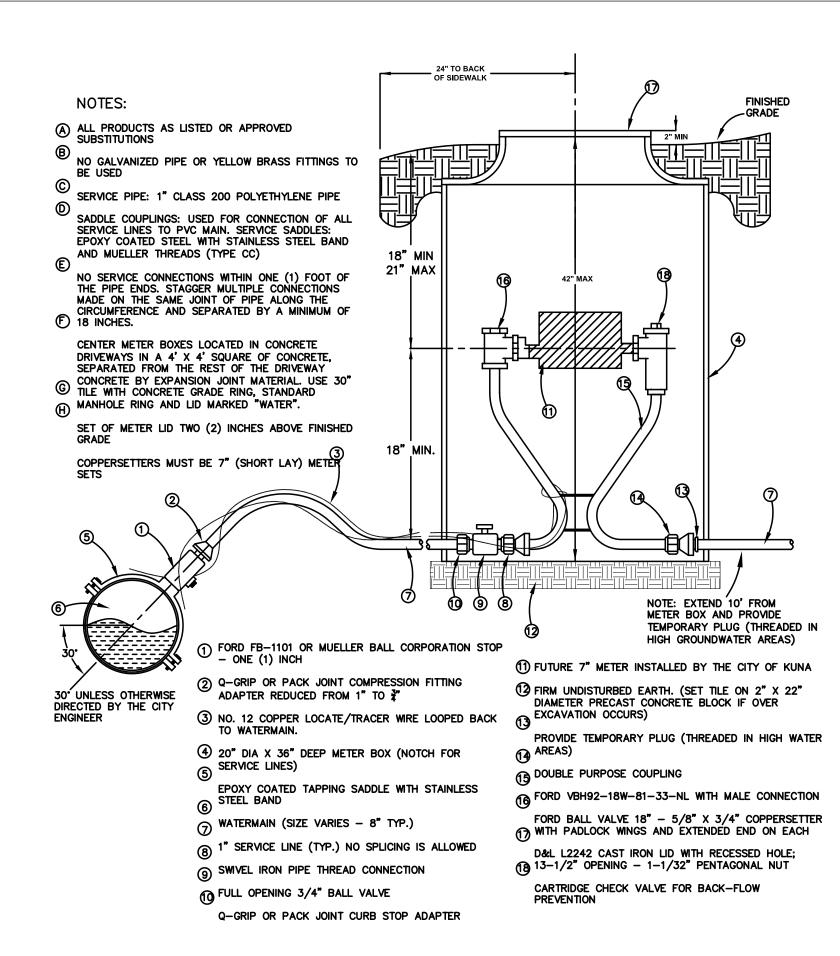




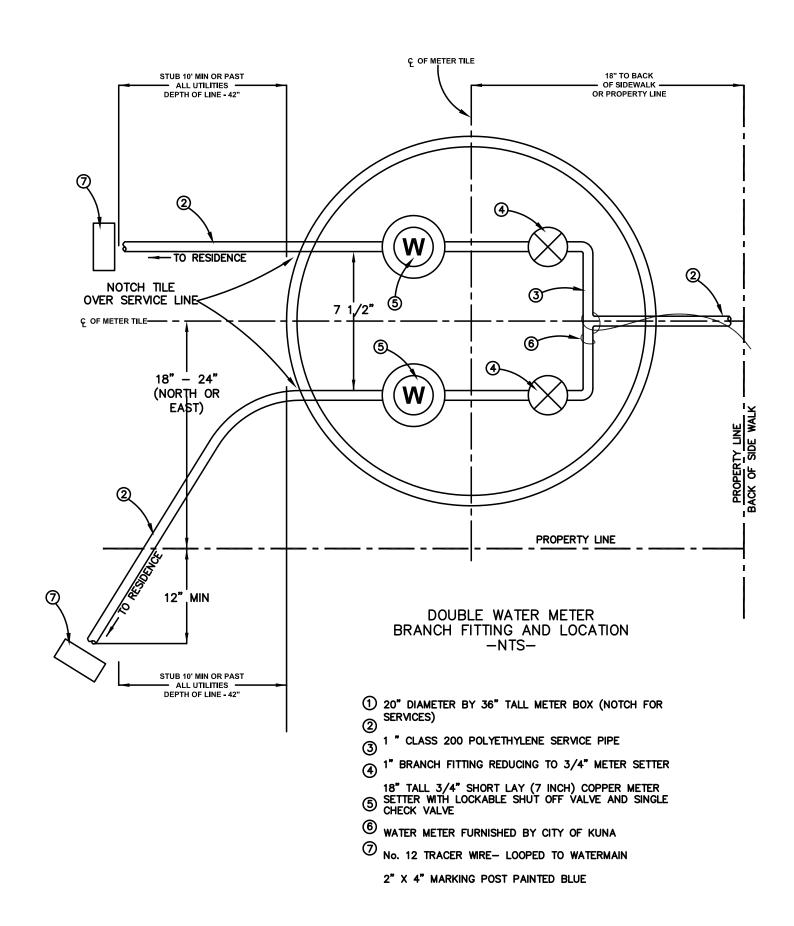








WATER SERVICE CONNECTION STANDARD 3/4" WATER SERVICE STD DWG 401-1



WATER SERVICE CONNECTION
WATER METER & PIT LAYOUT
KUNA WATER DWG 402





REVISED
NO. DATE DESCRIPTION

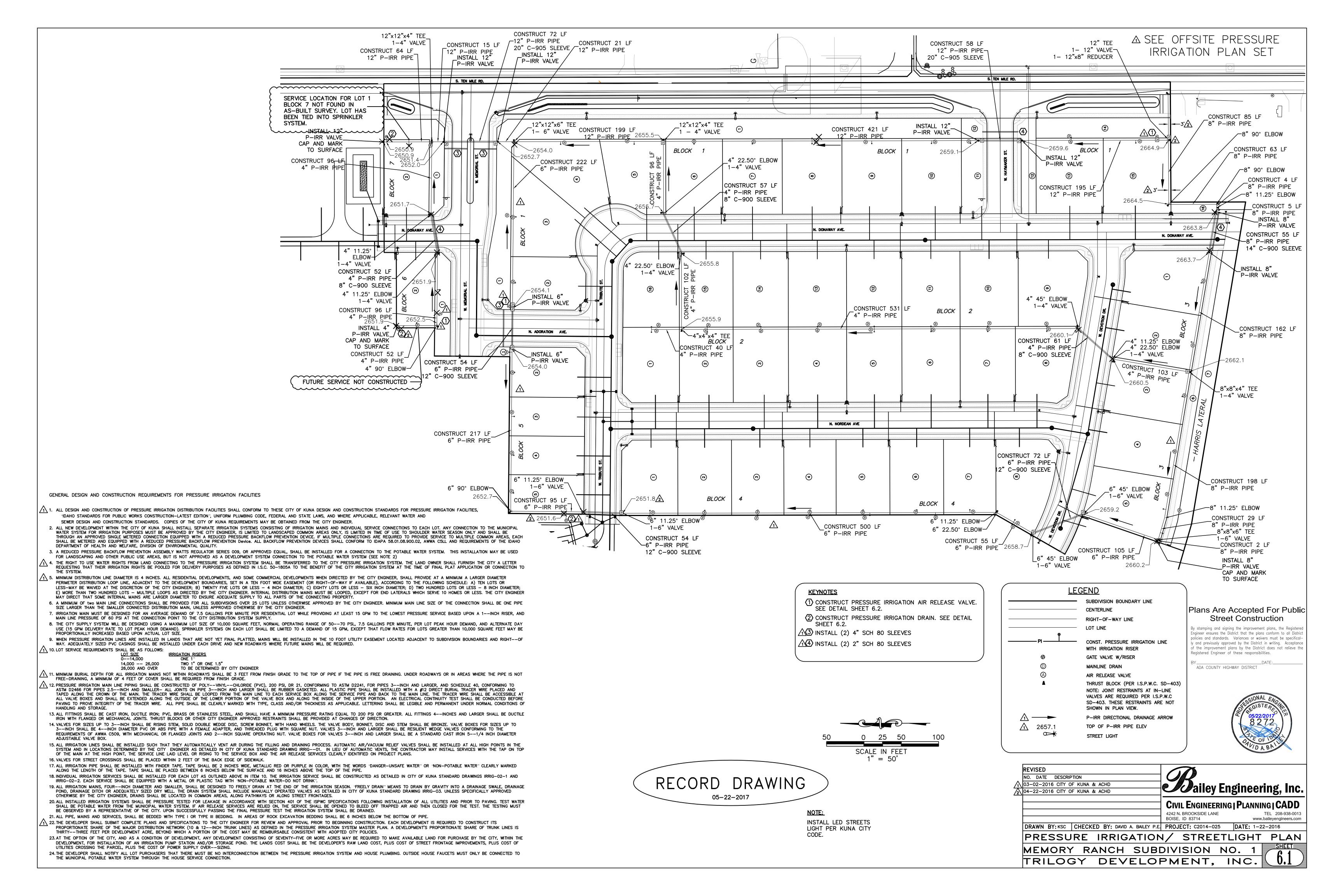
A242 N. BROOKSIDE LANE, BOISE, ID 83714 (208) 938-0013

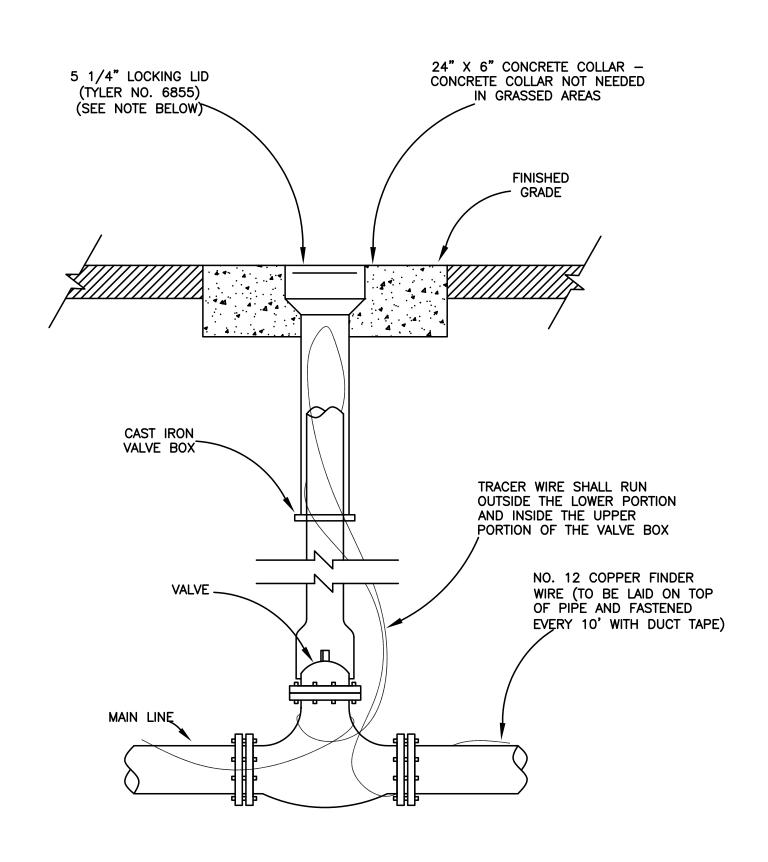
DRAWN BY: KSC CHECKED BY: DAVID A. BAILEY P.E. PROJECT NO. C2014-025 DATE: 1-22-2016

SEWER & WATER DETAILS

MEMORY RANCH SUBDIVISION NO. 1

TRILOGY DEVELOPMENT, INC 5.6

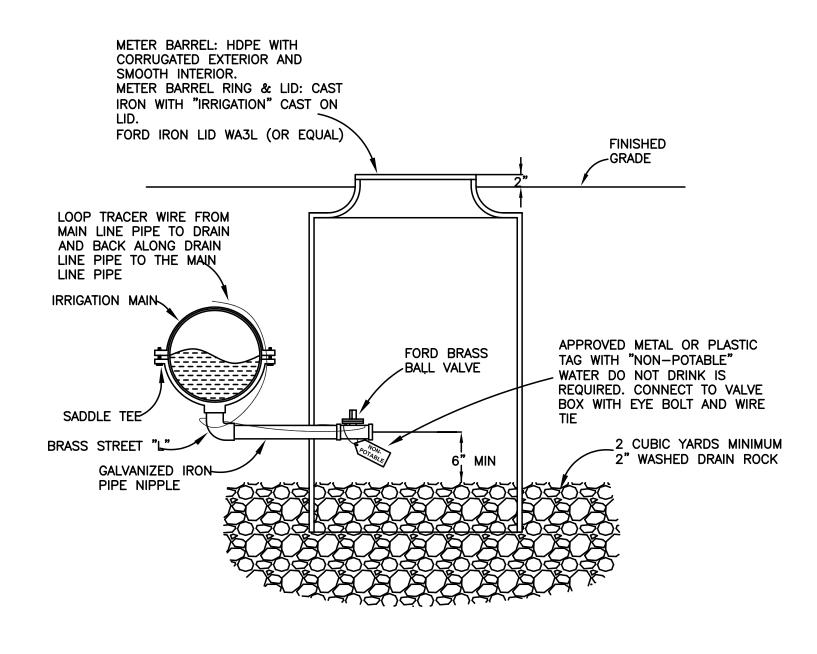




PRESSURIZED IRRIGATION

MAIN LINE VALVE

STD DWG IRRIG-01



## NOTES:

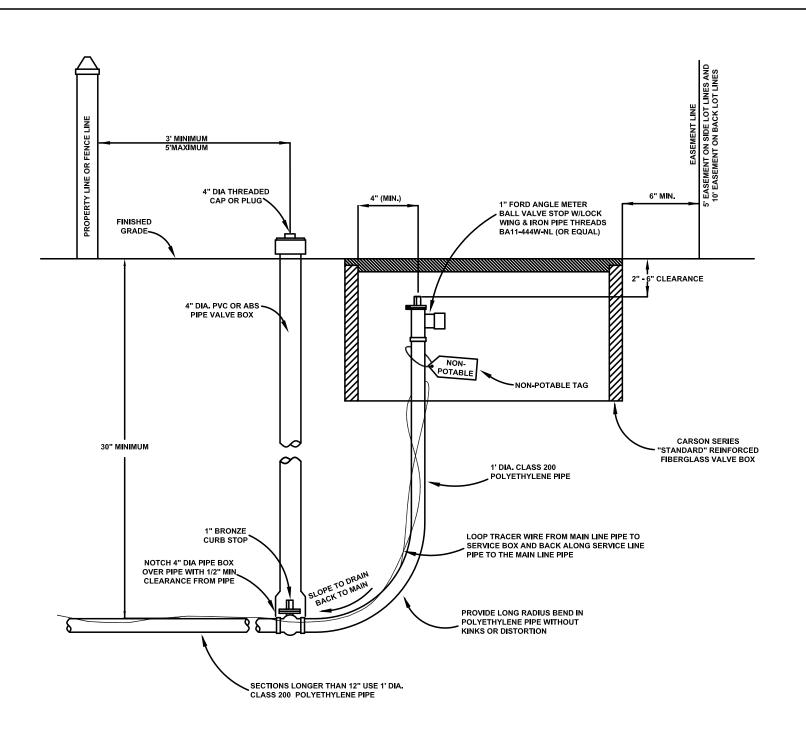
INSTALL MAIN LINE DRAINS AS REQUIRED AT ALL LOW POINTS TO PROVIDE COMPLETED DRAINAGE WINTER SHUT DOWN OF IRRIGATION SYSTEM

DRAIN PIPE AND FITTING SIZES SHALL USE BEST MANAGEMENT PRACTICES (BMP), PREFERRED SIZES INCLUDE 1-1/2" AND 2" DRAINS.

PRESSURIZED IRRIGATION

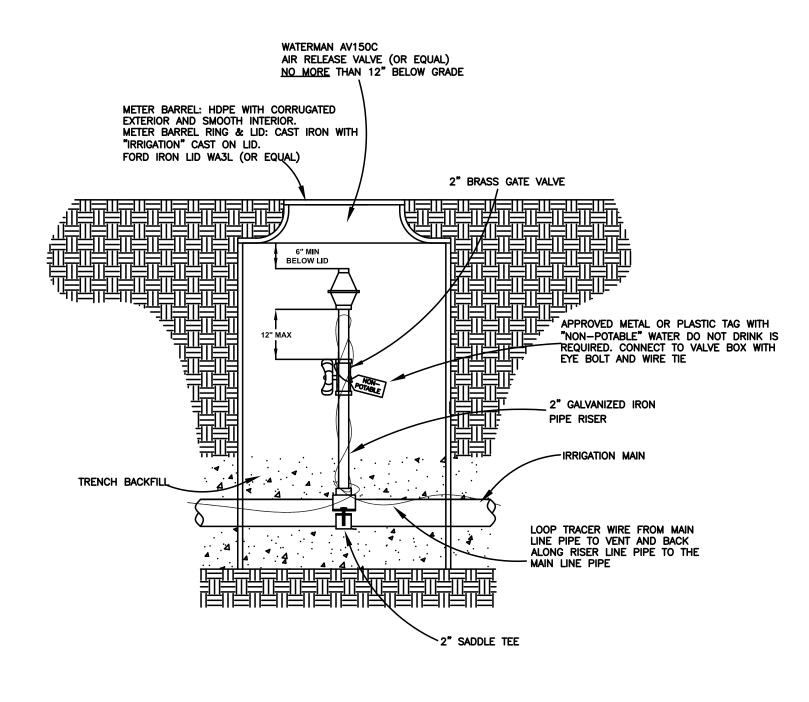
DRAIN VALVE

STD DWG IRRIG-03

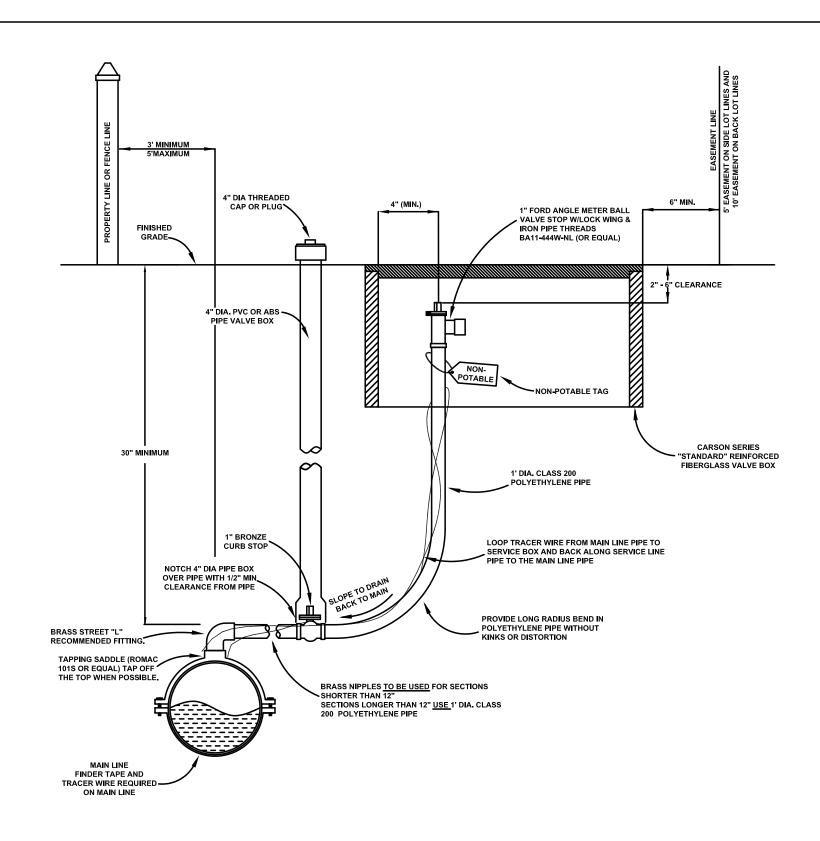


\*\*\*ALL CONNECTIONS SHALL BE MADE USING COMPRESSION BRASS GRIP JOINT/PACK JOINT FITTINGS. NO HOSE CLAMPS WILL BE ALLOWED.\*\*\*

PRESSURIZED IRRIGATION
STANDARD RESIDENTIAL 1" SERVICE
MAIN SIDE (LONG SIDE)
STD DWG IRRIG-02-02



PRESSURIZED IRRIGATION
AIR RELEASE VALVE
STD DWG IRRIG-04



PRESSURIZED IRRIGATION
STANDARD RESIDENTIAL 1" SERVICE
MAIN SIDE (SHORT SIDE)
STD DWG IRRIG-02-01

# Plans Are Accepted For Public Street Construction

By stamping and signing the improvement plans, the Registered Engineer ensures the District that the plans conform to all District policies and standards. Variances or waivers must be specifically and previously approved by the District in writing. Acceptance of the improvement plans by the District does not relieve the Registered Engineer of these responsibilities.

BY\_\_\_\_\_DATE:\_\_\_ ADA COUNTY HIGHWAY DISTRICT





NO. DATE DESCRIPTION	
	ailey Engineering, I
	Civil Engineering   Planning   CADD
	4242 N. BROOKSIDE LANE TEL 208-938 BOISE, ID 83714 www.baileyengineer
DRAWN BY: KSC   CHECKED BY: DAVID A. BAILEY P.	E. PROJECT: C2014-025 DATE: 1-22-2016

MEMORY RANCH SUBDIVISION NO. 1
TRILOGY DEVELOPMENT, INC.